Greenhouse Democracy: A Political Theory for Climate Change

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Writing a dissertation is a difficult endeavor. Going through the process has led me to confront a host of emotions, which I want to start by acknowledging in no particular order: uncertainty, doubt, exuberance, anxiety, excitement, nervous anticipation, frustration, indifference, and just a bit of avoidance, if not outright denial.

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Dedication

For Brooks, Genie, Midnight, and Miles.

Abstract

This dissertation offers a critique of what scholars have called the 'dominant climate imaginary:' a way of thinking that animates mainstream climate politics. It proposes in turn a 'democratic imaginary' through which to respond to anthropogenic climate change.

Through the lens of the dominant imaginary: 1) climate change appears as an essentially technical and scientific problem, 2) the impacts of climate change are presumed to be spatially and/or temporally distant, and 3) individuals and communities implicated in a changing climate are encouraged to accept that countering climate change is primarily the responsibility of distant organizations and institutions. As such, the dominant imaginary provides little room for centering and addressing everyday entanglements with climate change, even as it stymies opportunities for approaching climate change through bottom-up, democratic politics.

In response, this dissertation argues that concerned political theorists and activists ought resist the dominant climate imaginary, and proposes the concept of 'climate violence' as a means of doing so. Once climate change is understood as a problem of violence – and therefore not *only* a technical and scientific problem – questions about its political implications are more easily asked. Who is responsible for the problem? Who is most impacted? How should those who are implicated in one way or another think about responsibility for, and democratic responses to, climate change?

Having critiqued the dominant imaginary and argued for the concept of climate violence, the dissertation ends with a turn to democratic and feminist political theorists. By putting such theorists into conversation with the problem of climate violence, I end by outlining 'greenhouse democracy' a set of ecologically sensitive democratic commitments and provocations. According to greenhouse democracy the experience of living under the threat of climate violence, rather than any official citizenship granted by states, qualifies and invites one to participate in building bottom-up, collective responses to climate violence.

Table of Contents

List of Abbreviations

GHG .....Greenhouse Gas

CDM ..... Clean Development Mechanism

CDR .....Carbon Dioxide Removal

CoP ..... Conference of the Parties

EPA..... (United States) Environmental Protection Agency

EPT ..... Environmental Political Theory

ETS ..... Emissions Trading Scheme

FACE ..... Forests Absorbing Carbon Dioxide Emissions

IPCC .....Intergovernmental Panel on Climate Change

JI .....Joint Implementation

SRM..... Solar Radiation Management

UN .....United Nations

UNEP..... United Nations Environment Programme

UNFCCC .....United Nations Framework Convention on Climate Change

UNGA..... United Nations General Assembly

UWA.....Uganda Wildlife Authority

Chapter 1: Introduction

I. Political Theory in the Greenhouse

Climate change is a tremendous problem, in ways known and yet to be understood. Testifying to the scope and historical novelty of the problem, recent academic treatments have tried to come to terms with a changing climate by, for example, rethinking the ontology of objects so as to be able to conceive of its spatial and temporal expansiveness; by turning to the literary and cinematic genre of horror in order to capture the fundamental unthinkability of a changing climate; and, most generally, by proposing a shift from the geological epoch of the Holocene to the Anthropocene – an epoch in which a dehistoricized and universal humanity is the prime mover of conditions on earth.[1]

While such attempts try to help us with come to terms with what we do not yet know, what we *do* know is that climate change makes storms worse while eroding shorelines, and that the hottest year (and decade) on record now occurs routinely because humans have collectively altered the earth's atmospheric makeup. While we cannot be sure how right we are in attributing any given weather event to the climatic shift, we know that a significant connection is there.[2] Per the most recent Intergovernmental Panel on Climate Change (IPCC) report, some observed results of humanity's power to alter the earth's atmosphere include decade-by-decade successive warming over the last thirty years,

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[1] For examples, see Timothy Morton, *Hyperobjects: Philosophy and Ecology After the End of the World* (Minneapolis: University of Minnesota Press, 2013); Eugene Thacker, *In the Dust of This Planet: Horror of Philosophy,* vol. 1 (Winchester, UK: Zero Books, 2011); and Will Steffen, Paul Crutzen, and John R. McNeill, "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 614-21, respectively.

[2] Recent work weakens the longstanding truism that we cannot link particular weather events with a changed climate. See the Committee on Extreme Weather Events and Climate Change Attribution et al., *Attribution of Extreme Weather Events in the Context of Climate Change* (Washington DC: The National Academies Press, 2016).

oceanic warming that accounts for 90% of the additional energy retained in the environment since 1971, much more rain in some areas along with longer and more severe droughts in others, a 26% increase in ocean acidification since the industrial era began, a decrease in the Greenland and Antarctic ice sheets, and a roughly six inch rise in sea levels.[3] According to the same report, these changes have led to "extreme events," such as a "decrease in cold temperature extremes," "an increase in warm temperature extremes," an "increase in extreme high sea levels," and "an increase in the number of heavy precipitation events."[4]

To put it more simply, this all adds up to the melting of ice banks that used to protect tiny island communities in the far north and elsewhere: such communities are now more vulnerable to the sublime and deadly encroachment of the rising seas.[5] It produces towns in California that no longer have running water, where government employees and citizens must now scramble to piece together deliveries of water that was most likely bottled, of all places, in the perennially dry locale of southern California.[6] It translates into mudslides that threaten villages, busy freeways, and cities alike. It threatens already-

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[3] R.K. Pachauri and L.A. Meyer, eds, *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Geneva, Switzerland: IPCC, 2015), 2-4.
[4] Ibid., 7.
[5] Renee Lewis, "Vote of a Lifetime: Alaskan Town Decides Whether to Stay or Go in Face of Climate Change," *Fusion*, August 15, 2016, accessed August 31, 2016, http://fusion. net/ story/336452/alaskan-town-votes-on-relocating-because-of-climate-change/; Coral Davenport, "The Marshall Islands Are Disappearing," *New York Times*, December 2, 2015, Accessed July 17, 2017, https://www.nytimes.com/interactive/2015/12/02/world/The-Marshall-Islands-Are-Disappearing.html.
[6] Julia Lurie, "Here's What I Saw in a California Town Without Running Water," *Mother Jones*, September 7, 2015, accessed September 23, 2015, http://www.motherjones.com/environment/ 2015/08/drought-no-running-water-east-porterville.

vulnerable populations with increased flooding and erosion.[7] In short, the "observed changes" and "extreme events" set into motion by anthropogenic climate change and described abstractly by the IPCC translate into very concrete violences – past, present, and pending – on a global scale.[8]

Yet in part because of the technical ways in which bodies like the IPCC – the world's most authoritative adjudicator of climate science – narrate these kinds of findings, climate change is usually understood as a technical problem demanding advancements in management techniques, markets, and the theoretical and applied natural sciences. Reflecting the discourse presented by bodies like the IPCC, many politicians and publics alike demand such advancements in the form of new technologies to *mitigate* climate change – to reduce its sources – or in the form of new technologies that provide various human and nonhuman communities with the tools they need to *adapt* to its impacts – to live with the effects of climate change.[9] Indeed much commentary is saturated with technical jargon: words like mitigation, adaptation, carbon trading, and geoengineering top the list. The goal of the IPCC's Fifth Assessment Report, for example, is to supply the science needed to foster "mitigation and adaptation options within the framework of

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[7] Gardiner Harris, "Borrowed Time on Disappearing Land: Facing Rising Seas, Bangladesh Confronts the Consequences of Climate Change," *New York Times*, March 29, 2014, Accessed July 17, 2017, https://www.nytimes.com/2014/03/29/world/asia/facing-rising-seas-bangladesh-confronts-the-consequences-of-climate-change.html.

[8] See Kevin O'Brien, *The Violence of Climate Change: Lessons of Resistance from Nonviolent Activists* (Washington, DC: Georgetown UP, 2017) for a discussion of climate violence that comes close to mine and draws on similar sources. As will become clear, the bulk of my project is to theorize climate violence as such, along with the implications thereof. While my project and O'Brien's are largely complimentary, his specific focus is on how we might turn to thinkers of nonviolence in the Christian tradition for guidance.

[9] The language of mitigation and adaptation, and debates about the attention that each deserves, stem from the IPCC reports released between 1990 and 2014 (with the sixth round expected in 2021-2022).

sustainable development."[10] If the lay reader fails to immediately grasp the meaning of this goal, they can take solace in the fact of being far from alone.

Alongside and often in tandem with a technocratic or technical framework, a second major way of situating climate change is as a problem for international institutions. The United Nations Framework Convention on Climate Change (UNFCCC), we often hear, will have to continue its global response to climate change: a Herculean task if ever there was one. Insofar as the two can be taken separately, the UNFCCC can best be thought of as the *political* counterpart to the *scientific* body of the IPCC. Taken together, the IPCC and the UNFCCC simultaneously represent and reinforce the dominant ways in which climate change is conceptualized and mobilized: as a problem that demands technocratic, managerial, top-down *solutions*. What we need, the story goes, is to focus on developing new techniques, markets, and technologies while simultaneously bolstering regimes of international law and global governance. In this way, the physical effects and the social and political fallout of climate change might be managed.

Yet management always manages with some particular goal in mind. The first, 16th century target of 'managing' was equestrian, having to do with the measured act of using one's hand – the word stems from the latin *manus*, or 'hand' – to guide a horse through the *manège*, or arena. Management, here, means using various visible hands to guide the outcomes of climate change in such a way that minimizes damage to the world as it currently exists in its hegemonic rational, political, and economic modes: technocratic, neoliberal, and capitalist, respectively. Throughout, I will use the formulation of the 'dominant climate imaginary' along with the descriptors of the 'hegemonic,' 'dominant,'

[10] Pachauri and Meyer, *Climate Change 2014*, vii.

and 'managerial' approach to climate change more or less interchangeably.[11] This 'imaginary' or 'approach' is internally differentiated – there are, to be sure, disagreements within the dominant imaginary. Still, it makes sense to hold these elements together analytically insofar as they are part of a common endeavor and bound together by a faith in techno-optimism, neo- and often classical-liberalism, and capitalism. Simply, the dominant imaginary, despite internal differences, is marked by faith in the ability of existing institutions to respond to climate change adequately.

Institutions, in this sense, can be conceived quite broadly as encompassing international organizations like the UN and the World Bank as well as less formal 'institutions' such as representative and electoral democracy, participation in markets, etc. In a talk given to the American Political Science Association, Robert Keohane recently displayed this instinct to turn to established and traditional 'institutions' broadly conceived: "When I selected climate change as my theme for the James Madison Lecture," he tells, "my first impulse was to reread the *Federalist Papers*."[12] This reflexive reach far back into American history, to founders who never could have imagined global climate change might seem strange. But so too does reaching for other institutions tethered to the past and designed to confront past problems, if and when their logics could not have anticipated and are not designed to account for the human ability to wreak such havoc.

In other words, though given the prevalence of apocalyptic imagery it might seem odd

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[11] I borrow the phrase 'dominant climate imaginary' from Astrida Neimanis and Rachel Loewen Walker, "*Weathering*: Climate Change and the "Thick Time" of Transcorporality," *Hypatia* 29, no. 3 (2014): 558-75; I discuss the phrase in detail below.

[12] Robert Keohane, "The Global Politics of Climate Change: Challenge for Political Science," *PS: Political Science and Politics* 48, no. 1 (2015): 19.

to see it put this way, the dominant imaginary can actually be strangely optimistic. It seems strangely optimistic if, in the face of drastic climate change, we judge existing institutions alongside which climate change emerged capable of bringing about solutions. David Orr, an esteemed environmental thinker, makes a similar point about the dominant climate imaginary. In *Down to the Wire*, he notices that mainstream treatments often explicitly or implicitly presume that "by a combination of advanced technology and wise policy choices [based on old institutions like Madison's federalism?], the world will quickly act to stabilize concentrations of greenhouse gases and reduce emissions to a level below that which would lead to runaway climate change."[13] Like Orr, I am skeptical.

In the last few years this might have even seemed *realistically* optimistic: December of 2015 showed that limited global cooperation is indeed possible, as over 190 countries came to an agreement in Paris. In the months leading up to Paris, then-President Barack Obama had directed American attention to the need for quick action with trips to the Arctic and to some of those tiny and imperiled island communities mentioned above. With characteristically urgent rhetorical force, and providing some reason (perhaps *to* those who would go on to negotiate in Paris) to hope that the US was finally if temporarily ready to take its role seriously, President Obama delivered the following confession:

> I've come here today, as the leader of the world's largest economy and its second largest emitter, to say that the United States recognizes our role in creating this

[13] David W. Orr, *Down to the Wire: Confronting Climate Collapse* (Oxford: Oxford UP, 2009), xiii.

> problem, and we embrace our responsibility to help solve it. And I believe we can solve it. That's the good news. Even if we cannot reverse the damage that we've already caused, we have the means – *the scientific imagination and technological innovation* – to avoid irreparable harm.[14]

Perhaps Obama's remarks were in large part determined by his position as leader of the nation in which the world's largest economy operates and his recent experience of helping navigate the US away from the Great Recession of 2008. In some sense, he may have been all but required to perform a faith in the kinds of managerial techno-optimism that characterize contemporary America more broadly. Or perhaps he authentically believed what he said. Whatever the case, note the quick move from admitting fault and embracing responsibility, to claiming that scientific imagination and technological innovation – under the aegis of US leadership – will solve the climate problem without disrupting other parts of contemporary life. This latter claim captures the spirit of the dominant climate imaginary quite succinctly.

Throughout the speech, Obama also took caution to emphasize that climate solutions can be 1) pro-growth ("last year, for the first time in our history, the global economy grew and global carbon emissions stayed flat;" "technology has now advanced to the point where any economic disruption from transitioning to a cleaner, more efficient economy is shrinking by the day,") that 2) climate change can indeed be an opportunity for business ("many of America's biggest businesses recognize the opportunities and are seizing them,") and that 3) the other part of the puzzle has to do with states taking action

[14] Barack Obama, "Remarks by the President at the GLACIER Conference," speech, Anchorage, AK, August 31, 2015, accessed September 1, 2016, *Whitehouse.gov*, https://www.whitehouse.gov/the-press-office/2015/09/01/remarks-president-glacier-conference-anchorage-ak. Italics added.

on the global stage ("the United States will double the pace at which we cut our emissions, and China committed, for the first time, to limiting its emissions. Because the world's two largest economies and two largest emitters came together, we're now seeing other nations stepping up aggressively as well").[15] Obama's late turn to climate change seemed designed not only to confess the need for action, but perhaps more importantly to assure us that the solutions we need are already largely in our possession, that they are technologically oriented, and that their implementation need neither disrupt economic trends nor hinder economic growth. By embracing and doubling down on the managerial, neoliberal, and capitalist institutions out of which climate change emerged, his speech implied, we might still avoid its worst impacts. So whether or not Obama authentically meant what he said in Anchorage, the framework he provided set climate change up as one kind of problem rather than another, thus limiting rather than expanding the kinds of responses that can be demanded. In turn, the act of calling for such responses shores up and marshals a specific and often uncritical optimism common in the dominant approach – optimism about the ability of existing institutions to take care of the problem.

Likewise, grassroots organizations such as 350.org (associated with writer-activist Bill McKibben and, less directly, Naomi Klein) sounded *un*characteristically optimistic rhetorical tones leading up to the 21st Conference of the Parties (CoP) meeting in Paris, and ultimately gave cautious yet optimistic endorsements of the agreement that was ultimately reached.[16]

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[15] Ibid.

[16] Peter Thomson, "The Paris Climate Deal won't Save the World, but it Does Give Us a Chance," *PRI*, December 14, 2015, accessed August 31, 2016, http://www.pri.org/stories/2015-12-14/paris-climate-deal-wont-save-world-it-does-give-us-chance.

Yet as Lauren Berlant has shown, optimism as an "affective form" or psychic engagement with the world can indeed be cruel.[17] In Berlant's thinking, our optimism can betray us whether or not an outcome we have become attached to comes to fruition. Take the case of food, which Berlant mentions early and in which our attachment is to the satisfaction of having eaten a meal. Perhaps we desire the food we have decided to prepare for dinner, only to find the key ingredients absent from our pantry, or perhaps we desire the food we have prepared for dinner, only to find the taste much more bland than the recipe suggested. In each case we have become attached to an outcome – we have come to desire it – and optimistically believe said outcome will come about. In Berlant's thinking, "all attachments are optimistic," because "when we talk about an object of desire, we are really talking about a cluster of promises we want someone or something to make to us and make possible for us."[18] In the case of food, our desire brings with it the assumption that our dinner promises to exist and/or to taste delicious. Because our desires more generally rest on the optimistic assumption that the promises we want to see fulfilled will be fulfilled, and because such fulfillment often never arrives or is directly contravened, we face the probability that optimism is itself cruel.

Coming back to the issue, Berlant's analysis helps us understand the mechanics of the dominant climate imaginary's surprising optimism. While the dominant imaginary often presents climate change as a bleak and dangerous problem, it operates through the form

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[17] Lauren Berlant, *Cruel Optimism* (Durham, NC: Duke UP, 2011), 24. Note that such attachments "do not all *feel* optimistic" (24). Even as news media and cultural commentary on climate change rarely *feels* optimistic, we can understand it as taking the form of optimism insofar as it implicitly accepts the promise that those apocalyptic scenarios will be overcome relatively easily.

[18] Ibid., 23.

of optimism insofar as it accepts the promise that existing institutions can solve that problem. Likewise, Berlant helps us understand why the dominant imaginary's operations – when they fail but also when they succeed as they did in Paris – often disappoint. Because we optimistically expect such operations to solve our climate woes we feel betrayed both when the operations 'fail,' as was the assessment of CoP15 in Copenhagen and when they 'succeed,' as was the case with CoP21 in Paris. In both cases, widespread if only occasionally spoken optimism had led us to believe the improbable promise that the damage of climate change would be significantly repaired. In each case, such optimism was indeed revealed to be cruel. For Berlant most simply, "a relation of cruel optimism exists when something you desire is actually an obstacle to your flourishing."[19] Insofar as the desire of the climate imaginary – for a world almost exactly as it is but without climate change – is indeed impossible, the optimism it requires is cruel.

So, what might take the place of the dominant imaginary's cruel optimism? Implicitly countering the optimism shared by the dominant imaginary, President Obama, and Bill McKibben alike, Orr suggests a more honest reckoning with what humans have collectively done and what the now-inevitable results of those actions will be. Orr proposes we start with the fact that "the consequences of what we have already 'bought' will still cause great hardship everywhere" and again reiterates that it is misleadingly optimistic to hold that "climate is merely a problem that can be quickly solved by technological fixes without addressing the larger structure of ideas, philosophies,

[19] Ibid., 1.

assumptions, and paradigms that have brought us to the brink of irreversible disaster."[20] Orr's point – that the problem is too significant to be solved by managerial fixes alone – is not novel in terms of environmental thought. Yet its application to the problem of climate change remains an unfinished and necessary project.

Of course, the story doesn't end with Obama's tenure. Where the optimism he sought to foster and shared with many activists, world leaders, and other concerned parties was initially attractive, President Trump's rhetoric and early actions have sown significant doubts.[21] My point is not to highlight one or the other approach as the one that a US president ought to take, though I obviously have a preference in the former. Instead, the point is that both operate in a dominant climate discourse that focuses on existing institutions and is at best ambivalent about and at worst derisive toward everyday engagement, participation, imagination, and critique.

In referring to 'everyday engagement' I am relying on John Meyer's important book *Engaging the Everyday*.[22] There, Meyer proposes that engaged academic environmentalists start from the level of "everyday concerns," concerns that are "resonant with the lives of those of us who–in one way or another, and not just economically–'struggle to get by.'"[23] A turn to the everyday reminds us that whatever the result of top-down, managerial decisions like those central to the dominant imaginary, an everyday need to make practical and political judgments endures. Here, Meyer insists that actions

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[20] Orr, *Down to the Wire*, xiii-xiv. We might add *institutions* to his list without breaking with its spirit.
[21] Elizabeth Bomberg, "Environmental Politics in the Trump Era: An Early Assessment," *Environmental Politics*, DOI: 10.1080/09644016.2017.1332543 (2017): 1-7.
[22] John Meyer, *Engaging the Everyday: Environmental Social Criticism and the Resonance Dilemma* (Cambridge, MA: MIT Press, 2015).
[23] Ibid., 5.

taken at levels above that of the everyday "cannot resolve differences in how to act or in the distribution of consequences from a given act. The urgent demand to act cannot erase–and should not occlude–the inescapably political judgments that shape what action is deemed fitting, feasible, or fair in a given context."[24] A turn to everyday concerns of ordinary people – those of us who 'struggle to get by' in various ways – shifts attention to political questions that are not asked by the dominant imaginary and its level of analysis.

Instead of pursuing answers to the standard questions of how we can think about climate change as a primarily market, technological, or global governance issue, this dissertation instead asks how political theory broadly, and some currents in democratic and feminist theory specifically, can help us think about climate change as existing in, coming out of, and disrupting a series of everyday relations between different peoples, places, classes, species, and so on. Addressing climate change through the dominant imaginary and its attempt to solve the climate problem is at best a task for which the planet has little time and uneven concern – and at worst a case of cruel optimism, bound to disappoint. Drawing on enduring and more recent currents in political theory allows me, over the course of the dissertation, to develop an approach that turns partially away from the pursuit of climate solutions and instead aims at fostering, encouraging, and investigating questions about the political responsibility – what Meyer describes as inescapable political judgments – that we bear in and through our relationships to climate change and to one another in light of climate change. Across the dissertation I find that, given my proposed shift from a quest for climate solutions to an exploration of political responsibility, political theory is useful in at least four ways.

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[24] Ibid.

First, I find that political theory offers resources with which to *conceptualize* climate change in a way that is more directly political than the dominant approaches glossed above. Against cruel or managed optimism, turning directly to politics means decentering solutions (as the promise that our desire will be satisfied) as a starting point. Instead, a political approach starts from an analysis of the problem, and highlights the fact that the impact of climate change arrives unevenly across not only time and space, but also across lines of race, gender, and preexisting economic inequalities. I contend that the dominant imaginary, in reaching quickly for *solutions*, tends to be overly infused with the ideological and material logics of managerialism, neoliberalism, and capitalism out of which climate change first emerged and continues to unfold.[25] As such the dominant imaginary is overly optimistic about the ability of (certain) existing and emerging technologies to solve the problem of climate change even as it is not concerned to open up theoretical and conceptual space for developing democratic analysis and responsiveness.

As an alternative, I put forward the idea of climate violence as a better way of conceptualizing climate change; better insofar as it helps us ask questions about the way our everyday experiences intersect with and are situated within broader contexts and scales. Put differently, the lens of violence allows us to see that climate change is at once a structural problem *and* a problem of everyday life. As such, the concept of climate violence helps us to grasp the social, political, and ontological *relations* that are so often hidden behind a monolithic conception of climate change as a problem "out there" and

[25] For a *longue-durée* assessment of this process, see Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (London: Verso, 2016).

caused by "humanity." Conceptualizing climate change as violence offers a way of thinking politically about it, insofar as the concept shifts our attention away from abstract and overly broad characterizations ('we humans caused climate change and we humans are now in danger') to more concrete ones, in which we notice first and foremost that the violence of climate change is unevenly distributed across – again – geography, time, class, race, and gender. In this way, my conceptual approach is more directly political than those framed by the dominant imaginary.[26]

Second and relatedly, my dissertation also finds that political theory can help *dramatize* climate change in such a way as to bring it to life, and closer to the concerns of everyday life, than can other social scientific approaches (especially those found in in the IPCC and the UNFCCC, the contours of which are familiar to many people whether or not they are 'interested' in climate change or know themselves to be 'well informed' about related issues). This is because political theory has embraced lessons from theater,[27] narrative theory,[28] and other dramaturgical endeavors.[29] Throughout, I suggest

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[26] It is important to note that there are other ways of politicizing the question of climate change. The most prevalent way this has been done is through the lens of justice. Thinkers like Henry Shue and Steve Vanderheiden are among the most prominent and sophisticated thinkers in this line of research; I address their work below and again in Chapter 4.

[27] Iain Mackenzie and Robert Porter exemplify this move in their "Dramatization as Method in Political Theory," *Contemporary Political Theory* 10, no. 4 (2011): 482-501. I return to their work in Chapter 2

[28] See, for example, Joshua Foa Dienstag, *Dancing in Chains: Narrative and Memory in Political Theory* (Stanford: Stanford UP, 1997).

[29] While these endeavors are not central to my dissertation for reasons of space and staying on topic, it is important to recognize their occasional influence on my thinking throughout. This influence is most evident in Chapter 2. It is also worth noting that such efforts build on a longer history of attention to presentation in political and democratic theory. Take John Dewey as an example, who wrote that "poetry, the drama, the novel, are proofs that the problem of presentation is not insoluble … artists have always been the real purveyors of news, for it is not the outward happening in itself which is new, but the kindling by it of emotion, perception, and

that it matters how an issue like climate change is framed and presented because the way people *experience* the problem plays a part in conditioning whether and how they respond to it.

When climate change is presented in a way that is too overwhelming for people to confront, we might expect disengagement rather than action.[30] Without carefully attending to how we present and communicate, attempts to spread information or raise consciousness can overwhelm and lead to something akin to "psychic numbing," wherein people fall into "states of shock, unable to respond rationally to the world around them."[31] I suspect this is a fairly widespread affliction, if somewhat low-grade, in relation to climate change. The slower, steadier pace of political theory (as compared with presentations in the nightly news, viral videos, and so on) might present the problem in such a way so as to invite attention rather than overwhelm potentially attentive subjects. Where projects of information distribution or consciousness-raising associated with the news cycle and viral videos might suppose that a singular and transcendent truth need

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appreciation." John Dewey, *The Public and its Problems: An Essay in Political Inquiry*, ed. Melvin Rogers (University Park, PA: Pennsylvania State UP, 2012), 141.

[30] For a psychoanalytic explanation of such disengagement written by a practicing analyst who has also long worked in environmental communications, see Renee Lertzman, *Environmental Melancholia: Psychoanalytic Dimensions of Engagement* (New York: Routledge, 2015). For a critique of the role media plays in fostering disengagement, see Anabela Carvalho, "Media(ted) Discourses and Climate Change: A Focus on Political Subjectivity and (Dis)engagement," *WIREs: Climate Change* 1, no. 2 (2010): 172-9. For an argument against a particular dramatization - Showtime's *Years of Living Dangerously*, see Ted Nordhaus and Michael Schellenberger, "Global Warming Scare Tactics," *New York Times* (April 8, 2014), https://www.nytimes.com/2014/04/09/opinion/global-warming-scare-tactics.html. To make their point, Nordhaus and Schellenberger draw on an oft-cited empirical study: Saffron O'Neill and Sophie Nicholson-Cole's "'Fear Wont' Do It:' Promoting Positive Engagement with Climate Change through Visual and Iconic Representations," *Science Communication* 30, no. 3 (2009): 355-79.

[31] Kari Mari Norgaard, *Living in Denial: Climate Change, Emotions, and Everyday Life* (Cambridge, MA: MIT Press, 2011), 4. As Norgaard notes, gesturing toward its scope and impact, "psychic numbing" is a term originally developed by Robert J. Lifton in describing Hiroshima survivors.

only be spread widely, focusing on different ways of dramatically presenting the issue (including by reconceptualizing it as violence) assumes a more complex approach to truth and its reception, one in which the audience must necessarily participate. Throughout, I suggest that political theory and its attention to dramatization, presentation, and narrative instead of more straightforward transmission of knowledge provides better tactics for concerned parties to dramatize climate change in ways that invite engagement rather than despair – or cruel optimism – alone.

Third, I suggest that democratic and feminist political theory, especially when they overlap, offer invaluable insights through which to approach the ethics and politics of climate change in ways both novel and needed. Where the dominant imaginary locates responsibility for climate change in liberal individuals or nation-states, or where it limits the role of democracy to the election of leaders who will send the right delegates to the right international institutions, democratic and feminist theorists provide us with the means to push back. In place of strictly individual responsibility, for example, political theory offers resources for thinking about collective responsibility, and about a potentially prior project of fostering responsiveness, questions to which I turn in Chapter 4. In place of purely formal democracy, radical democrats point to the importance of everyday contestation while (especially feminist) political theory directs our attention to the unavoidable democratic task of allocating responsibility, to name a few examples.[32]

Finally, and underwriting the previous three claims, political theory provides a license, or an intellectual space from which, to leverage a broad *critique* of the kinds of

[32] On this last point, see Joan Tronto, *Caring Democracy: Markets, Justice and Equality* (New York: New York University Press, 2013).

managerial, neoliberal, and capitalist approaches mentioned above. Michael Walzer posits this license as the idea that political theorists can and ought study big things and move between the academy and the greater world.[33] A similar idea is expressed in Melissa Lane's exhortation that:

> Political theory's characteristically greater capacity for openness to the empirical and to the interdisciplinary is a strength on which the subfield's engagement with climate change should continue to build. At its best, political theory is, in Michael Rosen's lovely phrase … "the oasis where the caravans meet"–caravans of the social and political sciences, moral philosophy, and history, at the very least.[34]

Throughout, I rely on such a license – or meeting of caravans – to maintain that political theory (and the ability to move between and beyond various stripes of political theory, when relevant and complimentary *enough*) allows for the kind of big, broad study needed to think and rethink a problem as pressing as climate change.

As such, my Chapter 2 draws on methods of conceptualization and dramatization in order to re-think climate change as a form of violence. In Chapter 3 I turn directly to a critique of the managerialism and neoliberalism that animates existing climate change politics and the dominant imaginary alike. In Chapters 4 and 5 I turn to democratic and feminist theory in order to think through the question of responsibility for climate violence and to ask how democracy might respond to climate violence, even as it might be reshaped, or its emphases shifted, in light of climate change.

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[33] Michael Walzer, "The Political Theory License," *Annual Review of Political Science* 16, no. 1 (2013). See also John Meyer's discussion of Walzer's license in *Engaging the Everyday*, 12.
[34] Melissa Lane, "Political Theory of Climate Change," *Annual Review of Political Science* 19 (2016): 110.

What follows from all of this, to rehearse my subtitle, is a political theory for climate change. In line with much contemporary political theory this dissertation starts with the idea that political theory simultaneously speaks to thought and action; analysis and activism; to ideas about the world and to that world itself. When Marx wrote his eleventh thesis on Feuerbach, he sought not only to point out the importance of changing the world instead of 'merely' interpreting it but also, insofar as he did not denounce interpretation outright, to suggest that contemplation and change, *theoria* and *praxis*, were indeed tightly bound. To say that "the philosophers have only interpreted the world, in various ways; the point is to *change* it" is perhaps to say that interpreting a phenomenon is a necessary but not sufficient condition for altering it.[35]

In this context, the central question of my dissertation is this: *how might we conceptualize climate change in such a way that allows us to theorize and respond to it on democratic grounds?*[36] Contemporary political theory, and the kind embraced by many of us who think and write in the tradition of environmental political theory, is committed to deemphasizing if not denying the gap between theory and practice or text and world, and actively seeks to reduce the perceived gap between thinking and acting politically. My central argument is that we must conceptualize climate change first and foremost as a form of violence, because doing so will allow us new perspectives through which to approach questions of responsibility and democratic action with fresh eyes.

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[35] Karl Marx, "Theses on Feuerbach" in *Karl Marx: Selected Writings* 2nd ed., ed. David McLellan (Oxford: Oxford UP, 2000), 173.

[36] As I show in my Chapter 3, dominant approaches that decline to foster democratic engagement often wrongly assume that top-down political power and decision-making can counter climate change effectively. Democracy here – the idea that people deserve some say over that which affects them – is necessary insofar as the climate problem is too complex for any one top-down solution.

Still, I hope that my dissertation would interest thinkers outside of EPT, (contemporary) political theory, and indeed outside of political science, were they to come across it. A broader task of my dissertation, raised in the title, is to think through some of the implications that living on an interconnected planet, the *greenhouse,* has for democracy, justice, and so on.[37] My use of "greenhouse" here is deliberate, and is selected for two related reasons. First, I use greenhouse as a not-necessarily mutually exclusive alternative to the now-widespread "Anthropocene." The Anthropocene is a provocative idea, which as noted above holds humanity responsible for ending the Holocene, the earth's previous geologic epoch. The Anthropocene, proposed by Nobel Prize winner Paul Crutzen, would mean that "humans–thanks to our numbers, the burning of fossil fuel, and other related activities–have become a geological agent on the planet."[38] My first reason for using greenhouse, then, is to avoid a political abstraction that arises when we run too eagerly with the idea of the Anthropocene. In short, we risk universalizing responsibility for climate change and distributing it rather evenly to all people and peoples.[39] Andreas Malm puts the problem this way: "blaming all of humanity for climate change lets capitalism off the hook." To drive home the point, Malm tells us that "a single average US citizen emits more than 500 citizens of Ethiopia, Chad,

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[37] On shifting back to the older language of the greenhouse, I am inspired by Andrew Biro's "The Good Life in the Greenhouse? Autonomy, Democracy, and Citizenship in the Anthropocene," *Telos* 172 (2015): 15-37. Others have also continued to find the term useful. See, e.g., Barry Rabe, ed., *Greenhouse Governance: Addressing Climate Change in America* (Washington, DC: The Brookings Institution, 2010) and Chris Methmann et al., eds., *Interpretive Approaches to Global Climate Governance: (De)constructing the Greenhouse* (New York: Routledge, 2013).
[38] Dipesh Chakrabarty, "The Climate of History: Four Theses," *Critical Inquiry* 35 (Winter 2009): 209.
[39] For a nice overview that points to some similar critiques, see Fredrik Jonsson, "Anthropocene Blues: Abundance, Energy, Limits," in *The Imagination of Limits: Exploring Scarcity and Abundance*, eds. Frederick Felcht and Katie Ritson, *RCC Perspectives* 2015, no. 2 (2015): 55-63.

Afghanistan, Mali, or Burundi" and concludes that "humanity, as a result, is far too slender an abstraction to carry the burden of culpability."[40] In order to understand and respond to climate change in its concrete unfolding, any temptation to move toward "slender abstractions" (and they *are* often tempting!) should be seen as suspect.

My second and related reason for referring in the title and throughout to the greenhouse and to greenhouse democracy mirrors Dipesh Chakrabarty's point that climate change *does* nonetheless bring up the "*question* of a human collectivity."[41] As a *question*, Chakrabarty's more nuanced view invites further debate and contestation around the possibility of a human collectivity, rather than delivering it as a *statement* or an *answer* beyond discussion, as do more blunt forms of Anthropocene thought. More precisely, Chakrabarty's view allows us to deconstruct the sentiment that all humans are to blame and to instead point out that, within the human collectivity, an inequality of blame rests alongside an equality of implication.[42] Whether one is implicated *in* the project of changing the climate, implicated *by* the violent process of its unfolding or, perhaps most likely, implicated by some combination of the two, climate change

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[40] Andreas Malm, "The Anthropocene Myth," *Jacobin* (March 30, 2015), accessed June 24, 2015, https://www.jacobinmag.com/2015/03/anthropocene-capitalism-climate-change/. While I accept the bulk of Malm's critique, I do see value in the more refined statement that climate change "is not a Hegelian universal arising directly out of the movement of history, or a universal of capital brought forth by the present crisis …. Yet climate change poses for us a question of a human collectivity, an us, pointing to a figure of the universal that escapes our capacity to experience the world" found in Chakrabarty, "Climate of History," 222.

[41] Ibid. Emphasis added. In a lecture reproduced by the Media Education Foundation, Edward Said once expressed a similarly nuanced parsing-out of the tensions between universalism and difference: "I think there are indications as I suggested at the end of my talk in movements of what might be called a benign global consciousness in for example the environmental movement where environments differ but they are all threatened and they differ in different ways and have to be preserved and studied according to those differences, not according to some universal model." See Edward Said, "The Myth of 'The Clash of Civilizations,'" Lecture, *Media Education Foundation*, (Amherst, MA, 1998).

[42] Thanks to Nancy Luxon for giving me this formulation.

implicates humanity as such, even as causal blame cannot be applied in the same way.

In a different language, the image of the greenhouse implies a relational ontology (as I will discuss more in Chapter 5) that allows us to appreciate how particular humans come to be what they are in and through their relationships with other humans, nonhumans, environments, and so on. It recognizes that at a fundamental level we are all dependent on similar, interlinked, and fragile biological processes, carbon cycles, human relatives, friends, strangers, economies, and so on. Per Rachel Carson, "here again we are reminded that in nature nothing exists alone."[43] Greenhouse, to my mind, captures some of the urgency and historical novelty associated with the Anthropocene, without collapsing all of humanity into a single, abstract, and corporate agent. We all inhabit the greenhouse, but we live in different parts of it, with different identities and positions. We contribute unevenly to its ill condition, and are impacted to different degrees when its condition is indeed one of illness. The greenhouse, too, raises the "question" of human collectivity, even as it declines to answer that question in an overly simplified way. The subjects of greenhouse democracy are concrete and particular *humans*, not an abstract and universalized *humanity*.[44]

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[43] Rachel Carson, *Silent Spring*, Fortieth Anniversary Edition (New York: Mariner Books, 2002 [1962]), 51. Thanks to Lida Maxwell for directing my attention to this passage. See Maxwell, "Queer/Love/Bird Extinction: Rachel Carson's *Silent Spring* as a Work of Love," *Political Theory* (2017): 10.1177/0090591717712024.

[44] Throughout my focus is primarily on humans rather than the environment, nonhuman species, nature, and so on. While the latter can certainly be the recipient of climate and other environmental violence, the scope of this dissertation would be too large were I to focus on them in a sustained way. I hope to engage some of these issues in the future. In this regard, the conceptual apparatus I develop (climate violence, greenhouse democracy, etc.) is a framework that can be applied broadly. To be sure, a complete view could portray climate change as a *trans*human problem: a problem that crosses between humans but also beyond them, threatening and problematizing nature, environments, animals ecosystems, etc. It would also be too much to cover in one dissertation.

The rest of this introduction unfolds as such. First I look more closely at the UNFCCC in order to pin down the contours of the dominant imaginary in more detail. Next, I locate my project amidst the work that has already been done in political science and political theory. Finding such work useful but ultimately limited – like the dominant climate imaginary itself – I then suggest that the problem of climate change disrupts and inverts many of our long held assumptions about politics in the world and in theory alike, and show how different approaches to narrating and/or dramatizing climate change can help reorient our assumptions. A final section foreshadows my arguments, my chapters, and my methods in greater detail.

II. The Dominant Climate Change Imaginary

Throughout, this dissertation responds critically to dominant ways of thinking about the climate and proposes we think otherwise. Yet before getting to such alternatives, preliminary questions abound. How can we characterize the dominant approach to the problem of climate change? What is missing from or misguided in that approach? A turn to the UNFCCC, a founding document and consistent referent in international climate change politics, helps answer these questions. The point here is to flesh out and give definition to the "dominant climate imaginary," a term that Astrida Neimanis and Rachel Loewen Walker use to connote a view of climate change as something "distant and abstracted from our experiences of weather and the environment in the privileged West … saturated mostly in either neoliberal progress narratives of controlling the future or sustainability narratives of saving the past."[45] In borrowing the term, I mean to endorse Neimanis and Walker's claim that we in the West (and especially the US) think

[45] Neimanis and Walker, "*Weathering*," 567.

abstractly, are overly invested in progress narratives, and center our demands on vague notions of sustainability. I find these insights important and sufficient for their purposes. Yet because I will refer to the term throughout my dissertation, it is necessary to say a bit more about how I understand the components and impacts of the dominant imaginary.

In *Climate Justice*, Henry Shue highlights three additional and overlapping elements of the dominant imaginary deserving of mention, writing that the "dominant approach to climate change … has been to rely on political *leaders* to design *institutions* that will prohibit or discourage the use of fossil fuels by politically raising their prices–by 'putting a *price* on carbon.'"[46] Extrapolating, Shue is suggesting that the dominant approach is built on 1) an ideological commitment to market mechanisms, 2) existing institutions of states, markets, and their respective leaders, and 3) containing politics to such institutions by declining to explore additional ways of thinking or acting.

The UNFCCC can be read as a founding document of international climate politics. Negotiated at the Earth Summit in Rio de Janeiro in June 1992 and entered into force in March 1994, the UNFCCC laid the groundwork – and set the tone and the terms – for later agreements by the Conferences of the Parties in places like Kyoto and Paris. In this way it simultaneously captures and produces the dominant imaginary. As such, I now turn to the UNFCCC in order to parse out each element of the dominant imaginary in more detail.

Ideology

Despite the occasional nod toward issues pertaining to justice and uneven

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[46] Henry Shue, *Climate Justice: Vulnerability and Protection* (Oxford: Oxford UP, 2014), 2. Emphasis added.

development, the UNFCCC ultimately presents climate change as a technical problem to be managed. With regard to justice, Article 3 Section 1 notably suggests that member parties "should protect the climate system … on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities."[47] Likewise, in an acknowledgement of uneven development, the member parties are grouped into three categories, each of which is subject to slightly different requirements and treatment: Annex I, which includes developed countries and countries transitioning to market economies; Annex II, which includes all Annex I countries the economies of which are *not* in transition but solidly developed; and non-Annex I countries, made up of the developing world.[48]

Yet more commonly, the UNFCCC is guided by neoliberal market logics – of cost-effectiveness, for example – over and above just outcomes. Article 3 Section 3 holds that "the Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change … taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible costs."[49] Note that the language at play here suggests an economics-oriented prioritization of 'cost-effectiveness' over and above justice: not "global benefits" but "global benefits at the lowest possible costs" are to be secured. In sum, the document

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[47] United Nations General Assembly, *United Nations Framework Convention on Climate Change*, 1994: http://unfccc.int/files/essential_background/background_publications_htmlpdf/ application/ pdf/conveng.pdf, 9.

[48] For example, Annex I countries must provided detailed descriptions of the policies it will implement and an estimate of the effects thereof, whereas "developing country Parties may … propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects." Ibid., 23-4.

[49] Ibid., 9.

uses the word "economic" 43 times, the word "technological" 7 times, and the word "scientific" 21 times. "Justice" is used three times, but all three of those mentions simply refer to the International Court of Justice. The word "political" is never used.

Existing Institutions

Second, the dominant imaginary embraces a politics of working through existing institutions. In addition to markets, the main relevant institution is the state. One of the first acts of the document is that of "reaffirming the principle of sovereignty of States in international cooperation to address climate change," immediately followed by that of "recognizing that States should enact effective environmental legislation."[50] Here, the institution of sovereignty is defended along with the institution of the modern nation-state. While this is unsurprising insofar as these are foundational components of the UN project, it is worth noting as it points toward one of the ways in which the dominant imaginary reinforces existing institutions rather than beckoning for new lines of focus. While NGOs like the International Indigenous Peoples' Forum on Climate Change can be granted observer status and, as such, engage in negotiations, it is clear that the impact of such groups is far less significant than the influence enjoyed by official state Parties to the Convention.

Containment of Politics

The first and second elements of the dominant imaginary support the third: the containment of politics to actions and actors that flow logically from the ideological and institutional tendencies just discussed. Given the focus on neoliberal discourses and the state-based organization of global politics, the dominant imaginary encourages the

[50] Ibid., 2.

political use of markets rather than experiments with direct democracy; partnerships with NGOs or representatives from the private sector rather than the strengthening of local communities; and the measurement and enforcement of emissions by reference to the sovereign state rather than across other global units. Of the 11 uses of the word "action" in the document, the state was the agent 7 times, the Conference of the Parties twice. The tenth use was vague, and intended to highlight "that various actions to address climate change can be justified economically in their own right."[51] The eleventh use was part of a passing reference to the "implementation of the Plan of Action to Combat Desertification." In a quite literal sense, then, the only actors here are states, in isolation or through cooperation with other states.[52]

As in other areas of political life, this routinized, bureaucratic combination directs attention toward 'practical' *solutions* to climate change – where 'practical' might just mean 'status quo' – over and above more critical attempts to *think through* the problem. Stated critically, the dominant imaginary culminates, as John Bellamy Foster suggested of mainstream environmentalism in the 1990s, in "calls for new international agreements, for personal restraint with regard to the growth of both population and consumption, and the adoption of a handful of so-called environmentally friendly technologies."[53] By failing to reflect the vast, perhaps existential threat that a destabilized climate presents,

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[51] Ibid., 4.

[52] I do not wish to make the arguments that no state action is needed, that the state form must somehow be abolished before climate action can take place, or that states can never be made use of in order to advance alternative forms of action and encourage alternative forms of politics. Instead, I am suggesting that *if* states are to be used for more democratic ends, they must indeed be *made* to do so by citizens and others who may be able to influence what states do. Needless to say, this is itself no small task.

[53] John Bellamy Foster, *The Vulnerable Planet: A Short Economic History of the Environment*, new ed. (New York: Monthly Review Press, 1999), 12.

the dominant imaginary continues to walk us down the path of relatively minor adjustments around the edges rather than transformative change.

So while the above elements are unavoidably important components from a global governance perspective, focusing exclusively on them risks limiting the attention given to everyday political actions capable of fostering, supporting, demanding, legitimating, or going beyond the governance needed to end the fossil fuel era. As such, the dominant imaginary presents a fairly narrow conceptual and theoretical space in which to ask questions, one that largely excludes questions of how we might approach climate change differently, or about the role we might have if we do not have access to the above forms of politics, or about what we might do politically when the impacts of climate change *really* start to materialize for greater numbers of people.

Climate Protection from Above or Below?

In other words, this way of imagining approaches climate change as a problem to be solved largely 'from above.' Jeremy Brecher nicely summarizes two kinds of "climate protection" from above (roughly, governmental and nongovernmental attempts at climate governance) and from below (roughly, grassroots action and pressure on governments, nongovernmental organizations, corporations, and so on). While in practice the two are not as clearly separable as this analytic divide suggests, I find Brecher's distinction to be important and helpful. I critique some forms of climate protection 'from above' in Chapter 3 insofar as they often curtail democratic political conceptualizations of the problem, and I discuss the opportunities that political theory provides for edging toward climate protection from below in Chapters 4 and 5. Condensing the vast network of

climate action from above and demonstrating how it comes back to the UN-style global governance, Brecher offers the following illustrative anecdote:

> In 1988, as climate scientists became more certain about carbon-induced global warming and the global public grew more alarmed by extreme weather, the United Nations General Assembly designated the UN Environmental Program (UNEP) as the UN's venue for climate issues; UNEP, working with the UN's World Meteorological Organization, established the Intergovernmental Panel on Climate Change (IPCC), whose First Assessment Report rapidly established that global warming was real and probably caused at least in part by human release of greenhouse gases.[54]

From there, the UNFCCC, the political counterpart to the IPCC's scientific body, was established in 1992 and remains the most influential international venue for responding to climate change, given its nearly universal membership of states.

Predictably, many political and other social scientists pick up the work of the IPCC and the UNFCCC – and inherit the framework – insofar as such scholars engage climate change through the lens of global governance. A telling work of this sort is Anthony Giddens's *The Politics of Climate Change*.[55] There, Giddens frames the problem as essentially one of and for institutions of global governance. Per Giddens, having passed the "first wave" of climate politics, "the bringing of the issue onto the political agenda," we must now turn to a "second wave" which requires "embedding it in our institutions

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[54] Jeremy Brecher, *Climate Insurgency: A Strategy for Survival* (Boulder, CO: Paradigm Publishers, 2015), 18. More generally, see the second chapter of *Climate Insurgency*, "Climate Protection from Above."

[55] Anthony Giddens, *The Politics of Climate Change* 2nd ed. (Malden, MA: Polity Press, 2011).

and in the everyday concerns of citizens."[56] Once the second wave is accomplished, we will only need to work out the details of issues like "technologies and taxes" (Chapter 6) and "the politics of adaptation" (Chapter 7): chapter headings that could be section headings of any number of IPCC and UNFCCC related documents. To do this, Giddens concludes that "we still need the UN" to coordinate the actions of states, businesses, and civil society and to leverage such actions into binding global agreements.[57]

Given the goal of slowing and potentially reversing GHG emissions, it reasonable that Giddens and others attempt to work through the lens of the UN. Indeed my argument in this dissertation is neither to suggest that the UN is a wrong turn *in toto*, nor that global governance and any other action "from above" ought be wholly abandoned.

Instead, I want to suggest that too little has been done to theorize the conditions for and impediments to the kind of "civil society" actions "from below" that Brecher, and at times even Giddens, celebrate. More so, too little has been done to ask what people who experience climate change can or should do. The dominant climate imaginary doesn't encourage us to think about people and their lived experiences. As such, the resources marshaled by thinkers who take a more embodied approach to political matters have been thought of as secondary to the institutional politics of global governance that engages climate change along the lines drawn by the UNFCCC. My dissertation aims to correct this, and suggests that engagement with responsibility and democratic politics emerge as necessary projects once the violence and hence fundamentally political nature of climate change is placed front and center. I now situate this project in relation to work done by

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[56] Ibid., 3.
[57] Ibid., 227-8.

political scientists of various stripes, from whom I have learned much and with whom I nonetheless have significant disagreements.

III. Political Science and Political Theory on Climate Change

In 2014, Debra Javeline asked the field of political science an important question. Why, she asked, are so few political scientists studying adaptation to climate change? Providing sample research questions for twenty one (!) subfields of political science, Javeline expressed a conviction that thinking through adaptation should be "a large and growing super field that connects almost all existing fields of political science."[58] This question is notable for two reasons. First, the choice, whether intentional or reflexive, to imply that political scientists should approach climate change through the language of adaptation is itself shaped by the dominant climate imaginary. Adaptation, given its original context of the UNFCCC, is itself a highly technical and managerial starting point.

The second reason the language is notable is that it eclipses a bigger question: why aren't political scientists studying *climate change*? To be sure, some are, primarily but not exclusively those who work in international relations and political theory.[59] Yet given Henry Shue's insistence that climate change is an "unavoidable issue," we should expect more focus than we see currently see.[60]

We do see some such work when we seek it out, though it remains somewhat limited

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[58] Debra Javeline, "The Most Important Topic Political Scientists Are Not Studying: Adapting to Climate Change," *Perspectives on Politics* 12, no. 2 (2014): 421.
[59] Ibid. Part of the problem is that as recent a development as climate change itself is, the political theoretic study of climate change is even more recent: "Only in the last ten years (2005-2015) has climate change become a central focus for political theory." Lane, "Political Theory of Climate Change," 108.
[60] Shue, *Climate Justice*, vi.

in scope. Political *scientists* have primarily addressed climate change from within the dominant imaginary by relying on, responding to, or extending work done by the IPCC and the UNFCCC. As such, they have approached climate change as a problem of global governance, and attempted to think through some of the knotty problems involved with regulating global GHG emissions accordingly. Political *theorists* on the other hand have shown slightly more variation in their approach. One camp approaches climate change through the lens of *justice*, attempting to design ideal or non-ideal theories capable of guiding global action. Shue got this approach off the ground. More recently, Steve Vanderheiden has continued it, while Eric A. Posner and David Weisbach have critiqued it. Along the lines discussed in the previous section, approaches by political scientists and political theorists largely work from within the dominant imaginary rather than attempting to conceptualize the problem in novel and useful ways. In the sections that immediately follow I turn to authors representing each of these approaches to make this case.

Global Governance

David Victor is perhaps the most active political scientist publishing on the topic. Writing with Robert Keohane, Victor's well known article "The Regime Complex for Climate Change," argues that climate change is so complex and multifaceted that the global governance response to it should come in the form of a regime *complex*: "a series of narrowly focused regulatory regimes."[61] In their reading, attempts to formulate a global regime (the UNFCCC and Kyoto more specifically) have instead produced a series

[61] Robert Keohane and David Victor, "The Regime Complex for Managing Climate Change," *Perspectives on Politics* 9, no. 1 (2011): 10.

of autonomous and overlapping regimes that focus on particular aspects of dangerous climate change such as sea level rise or industrial GHG emissions. Likewise, their regime complex approach recognizes that there are different kinds of agreements and actions taken to respond to climate change: UN legal regimes that attempt universality yet often remain nonbonding, "clubs" such as the G20 and G8 that have their own sets of responses, subnational institutions like the emission granting system attempted by California that try to address climate change from a more local or provincial position. After describing a segmented and multifaceted set of regimes, Keohane and Victor endorse this unintended effect of the efforts of the UNFCCC, and argue that a regime complex may more effectively manage the myriad extensions of climate change than could a single global regime focused on climate change as a unified phenomenon.

While Victor's analysis may or may not be correct, it does not reflect the complexity of climate change that I am proposing. As mentioned, my claim about the complexity of climate change is a conceptual one; complexity means we must strive to think through climate change *as such*. Authors like Keohane and Victor, risk underemphasizing the weight of climate change by suggesting that we can only focus on individual effects thereof. In doing so, they imply that technocratic, top-down solutions are appropriate to solving split-up aspects of climate change.[62] This, in turn, obscures the issue as such, along with its political, economic, and social causes and effects, rather than clarifying it.[63]

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[62] In a sense I am proposing the inverse: bottom-up approaches to the totality of climate change.
[63] See also Victor's policy-oriented works, a good example of which is *Global Warming Gridlock*: *Creating More Effective Strategies for Protecting the Planet* (Cambridge: Cambridge UP: 2011), in which Victor makes the case that a transition away from carbon is impossible, and

Yet a formal focus on regimes is not the only way of approaching climate change as an issue of global governance. Anthony Giddens's work mentioned before is worth discussing here as well. Adopting what he calls a "realist" view in which "we have to work with the institutions that already exist and in ways that respect democracy," Giddens outlines a view in which state, market, and international institutions of global governance combine to counter climate change.[64] Accordingly, Giddens sees the potential for solutions to climate change to emerge from any of these "institutions that already exist:"

> They could happen at the *international level* … there might be breakthroughs in the *economic conditions affecting low-carbon technologies* …there could be breakthrough innovations in various areas of *technology* … [or] there could be an event, or set of events, clearly attributable to climate change, that cause a surge in *activism* around the world.[65]

Yet the analysis does not focus much on this last possibility. Instead, *The Politics of Climate Change* ends with a chapter on "The Geopolitics of Climate Change" which itself concludes with a section on "why we still need the UN." Ultimately, and partially contra Victor and Keohane, Giddens suggests that the UN must remain at the center of climate politics, and that "the action of states," "the responses of business, large and small," and "the emergence of a diverse and fizzling global civil society" ought to seek to

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advocates instead for ecomodernist technologies which would allow for the sanitization of consuming fossil fuels. See also his *The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming* (Princeton: Princeton UP, 2001).

[64] Giddens, *Politics of Climate Change*, 6. Where Giddens's *realism* directs him toward existing institutions, my own *realism* leads me to question their potentials, as I previously discussed. From my perspective, then, Giddens's realism is yet another cruel optimism.

[65] Ibid., 9-10.

bolster the UN as "an instrument of global governance."[66]

Common to both of these approaches is the conviction discussed above that, while ordinary political and democratic action might be useful, its use ultimately lies in its ability to bolster institutions of global governance. Yet presently, as David Keith reminds us, "we lack the social tools to make sound collective decisions about planetary management."[67] In other words, we might be tempted to agree with Giddens's "realistic" amenability to working through existing institutions in order to design and implement regimes of global climate governance. Yet we should not forget that at present such institutions have not proved effective, even on their own terms. Likewise, it is doubtful that those invested in linking democracy and climate change together would be comfortable waiting for an "event, or set of events," presumably catastrophic, to lead to an increase of (again, presumably) democratic activism around the world.

Justice

Where the global governance approach meshes well with the dominant climate imaginary, thinkers who start from the paradigm of justice have moved partially away from it. Approaching climate change through the lens of justice, some environmental political theorists have instead come to see climate change as a distributive problem, where the target of distribution is not necessarily wealth or capital, but environmental 'goods,' 'bads,' and responsibilities. Though such debates are multifaceted and complex, different 'camps' have taken form around two central questions: how to distribute such goods, bads, and responsibilities, on the one hand, and whether to take historical

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[66] Ibid., 227-8.
[67] David Keith, *A Case for Climate Engineering* (Cambridge, MA: MIT Press, 2013), 4.

emissions and inequalities into account when doing so, on the other.

Steve Vanderheiden's work exemplifies the first line of questioning. Vanderheiden's task is to take seriously the UNFCCC language of "common but differentiated responsibility" for climate change as a guideline by which to fairly distribute responsibility across the international Westphalian system of states.[68] As such it shares some basic elements with the dominant imaginary, even as it places concerns about distributive justice front and center. Discounting early Rawlsian critiques of cosmopolitan justice (that is, justice as an idea that reaches beyond particular nation states) and moving toward the international political theory of justice developed by Charles Beitz,[69] Vanderheiden ultimately argues that political, economic, and natural costs, benefits, and capacities, such as the atmosphere's ability to absorb GHGs, ought be divided according to principles found in the UNFCCC and the Kyoto Protocol. With regard to natural resources like carbon sinks, Vanderheiden suggests we see these as "morally arbitrary" in the Rawlsian sense (mirroring the way Rawls treats the distribution of natural talents *intra*nationally), and concludes that "principles of distributive justice must guide the allocation of shares of the atmosphere's absorptive capacity [for example] in the form of national emissions caps."[70] The takeaway from *Atmospheric Justice*, however, is more elegant, and consists in the idea that the Kyoto protocol is enough, or a good enough starting point, for distributing the costs and burdens of climate change mitigation.

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[68] Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford: Oxford UP, 2008).
[69] Charles Beitz, *Political Theory and International Relations* New Afterword ed. (Princeton: Princeton UP, 1999).
[70] Vanderheiden, *Atmospheric Justice*, 102-3.

Though Vanderheiden's book is not explicitly mentioned in its pages, Eric Posner and David Weisbach's *Climate Change Justice* can be read as a response to the former's attempt to bring global political theory and global justice to the center of the UN response to climate change. In doing so, Posner and Weisbach demonstrate the second question around which differing sides form, that of whether or not historical emissions should be taken into account when considering just distribution. As if responding to Vanderheiden, Posner and Weisbach opine that:

> The Kyoto Protocol had serious, even fatal problems. It imposed no restrictions on developing nations such as China and India, where emissions are increasing dramatically; for this reason, it could not reduce greenhouse gases to tolerable levels. Further, the Kyoto Protocol imposed an extremely severe burden on the United States, which therefore refused to join the treaty regime.[71]

In other words, Kyoto was dead on arrival to these authors insofar as it wasn't harsh enough on developing economies and, mirroring George W. Bush's rhetoric, was unfair to the United States. From this starting point, Posner and Weisbach argue that climate "justice" ought to be conceived as distributing all costs more or less equally internationally (as measured in the contemporary moment), and that the pursuit of climate justice ought not entail any sort of redistributive effort. In other words, climate justice would mean ignoring historical contributions to the problem, and embracing a forward-looking view that fully acquiesces to the common sense and status-quo preserving

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[71] Eric Posner and David Weisbach, *Climate Change Justice* (Princeton: Princeton UP, 2010), 3. To say that Kyoto imposed no restrictions on China and India is misleading. It is more accurate to say that Kyoto placed no immediate restrictions – restrictions on countries like China and India were to be phased in over time.

sentiment that if we "demand too much from the rich world, the rich world will drag its feet."[72] Rather than an invitation for political struggle, Posner and Weisbach see this as an acceptable or at least unalterable limit on climate justice.

I would critique Vanderheiden from a different angle than do Posner and Weisbach. Rather than arguing that justice and the response to climate change ought be kept separate, I suggest that a careful consideration of climate violence and of the histories out of which that violence emerged recommends a different approach to justice, one at once less tied to ideal and non-ideal theorizing about justice alike and more closely related to the tradition of environmental justice, with its emphasis on paying attention to particular wrongs, and to how such wrongs are patterned across intersecting identities and positions. Rather than trying to keep justice out of an expert-based approach to fixing climate change – as do Posner and Weisbach – or trying to theorize how justice might be meted out by international institutions – following Vanderheiden – we ought turn to those impacted by climate change for guidance on what *democratic* environmental justice might look like. Responses to climate change that do not take seriously the experience of those who cannot avoid making political judgments and everyday choices about how to survive raise the paradoxical prospect of 'solving' the problem without improving the lot of those who are impacted by it.

Questions of Democracy in the Greenhouse

I largely depart from these approaches, instead contributing to three others (which I do not exhaust here, but engage throughout the remainder of the dissertation). First, I contribute to an approach that offers a critique of mainstream climate politics as it has

[72] Ibid., 5.

developed.[73] Second, I contribute to an approach that asks about the relationship among democracy, democratic theory, and the politics of climate change.[74] Finally, my dissertation contributes to an approach that looks at the relationship between environmental harm and violence.[75]

My central questions, about how we might reconceptualize the problem of climate change and present it in ways that depend on and support specifically democratic political action, is informed by and speaks to these latter approaches, even as it is not directly addressed in any of them. Anyone who takes climate change seriously will tell you that a key problem is the continued and increasing need to develop non carbon-based energy capable of powering some semblance of contemporary ways of living. I do not disagree, but I do draw attention to the need for a different kind of energy: a specifically democratic one. As Giddens began to imply above (but ultimately left aside), without such energy to fuel movements, make demands, and so on, little of the work of democracy gets done.[76] If we are to address climate change in such a way as to foster democracy and to distribute responsibility, environmental goods, and environmental bads

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[73] See, for example, Parr, *Wrath of Capital* and Amanda Machin, *Negotiating Climate Change: Radical Democracy and the Illusion of Consensus* (London: Zed Books, 2013).

[74] See, for example, Barry Holden, *Democracy and Global Warming* (London: Continuum Books, 2002); Graham Smith, *Deliberative Democracy and the Environment* (London: Routledge, 2003); and Frank Fischer, *Climate Crisis and the Democratic Prospect: Participatory Governance in Sustainable Communities* (Oxford: Oxford UP, 2017).

[75] See Vandana Shiva, *The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics* (London: Zed Books, 1991) and Thomas Homer-Dixon, *Environment, Scarcity, and Violence* (Princeton: Princeton UP, 1999).

[76] In a very different context, see Elizabeth Beaumont, *The Civic Constitution: Civic Visions and Struggles in the Path toward Constitutional Democracy* (Oxford: Oxford UP, 2014) for an incisive analysis of the ways that American constitutional democracy has always needed civic, democratic action or "energy" in order to approximate its promise. Greenhouse democracy will end up looking very different from traditional constitutional democracy, but both share an emphasis on the need to encourage, foster, and sustain democratic energy.

in a democratic way, we have to think about this kind of energy: not as a *solution* in and of itself, but as a way of focusing on expanding the *possible*. As such my dissertation is an attempt to think through how we might generate more of this democratic energy, in light of a dominant (climate) imaginary that makes it look unlikely. Essential here is a conviction that runs throughout: that people can *act* and *be* democratic without *having* a formal democracy, even as people can *have* a formal democracy without *acting* or *being* democratic. Democratic things, simply, are things that are available to most, if not all.[77] Asking into the grounds of possibility for *acting* democratically and *being* democratic and thereby generating democratic energy to be wielded against the myriad forces changing the climate is the ultimate focus of this dissertation.

IV. Climatic Inversions: Violence, Responsibility, and Democracy in the Greenhouse

But how would we ever get there? First, we need new ways of analyzing or conceptualizing climate change in a way that moves beyond the limitations of the dominant imaginary, and that culminate in a conceptualization of climate change as a technological problem requiring (managerial and neoliberal) depoliticized solutions. Consider, for example, the opening narration of climate change taken from the EPA's *Climate Change Indicators in the United States, 2016*:

> The Earth's climate is changing. Temperatures are rising, snow and rainfall patterns are shifting, and more extreme climate events—like heavy rainstorms and record-high temperatures—are already taking place. Scientists are highly confident that many of these observed changes can be linked to the levels of

[77] I borrow this idea from Dean Mathiowetz, who in turn develops it in relation to Aristotle's concern with that which is available to the many. See Mathiowetz "'Meditation is Good for Nothing:' Leisure as a Democratic Practice," *New Political Science* 38, no. 2 (2016).

> carbon dioxide and other greenhouse gases in our atmosphere, which have increased because of human activities.[78]

To be sure, this excerpt presents the basics of climate change accurately: the climate is changing; ill effects are already here; scientists are sure that humans are the cause. Yet in using wholly dispassionate language, appealing only to scientific confidence, and referring generically to human activities such a framework already, if subtly, starts to imply a scientific and technological solution that in its purest form would be devoid of politics. To invite lively democratic engagements, the language we use and the stories will tell will first need to be significantly closer to life.

New conceptualizations would also do well to avoid a second prevalent way of approaching climate change – depoliticizing in its own right – which figures it as such a large, abstract, or "apocalyptic" problem that those confronted by it retreat into hopelessness or escape into denial.[79] Here we might turn to Erik Swyngedouw's portrayal of an apocalyptic imaginary in which climate change signals:

> A world without water, or at least with endemic water shortages, ravaged by hurricanes whose intensity is amplified by climate change's pictures of scorched land as global warming shifts the geopluvial regime and the spatial variability of droughts and floods; icebergs that disintegrate around the poles as ice melts into the sea, causing the sea level to rise; alarming reductions in biodiversity as species

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[78] United States Environmental Protection Agency, *Climate Change Indicators in the United States*, 4th ed. (2016): EPA 430-R-16-004.

[79] See the excellent entries in Sally Weintrobe, ed., *Engaging with Climate Change: Psychoanalytic and Interdisciplinary Perspectives* (New York: Routledge, 2013) for a complex and generative expansion of the concept of denial in relation to climate change.

> disappear or are threatened by extinction ….[80]

And on, and on, and on. Swyngedouw's point is that left unchecked, lively descriptions can be pacifying in their own right. According to this too-lively description, "our ecological predicament is sutured by millennial fears, sustained by an apocalyptic rhetoric … signaling an overwhelming, mind boggling danger" that threatens to undermine everything.[81] Instead of rousing citizens and denizens to action, such frameworks constitute "an apocalypse without the promise of redemption," thus encouraging a turn away from the problem toward apathy, denial, or unworldliness.

This dissertation, in distinction to the approaches just discussed, starts from the premise that climate change is more recalcitrant than the (sometimes concealed) optimism of technocratic approaches would suggest. Yet I also want to show that even if the problem of climate change *is* apocalyptic, and perhaps especially if it is, the need for democratic responsibility, engagement, and care will remain. If, in Naomi Klein's words, climate change "changes everything," then academics and other thinkers have to think beyond dominant approaches so often content to treat climate change as a crisis requiring our politics to "change radically, but within the contours of the existing state of the situation … so that nothing really has to change."[82]

Against this changeless change I take it as a starting point, and also a partial explanation for the popularity of the turn to the Anthropocene, that climate change is not just another problem and that the environment is not just another issue-area. Instead, the

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[80] Erik Swyngedouw, "Apocalypse Forever? Post-Political Populism and the Spectre of Climate Change," *Theory, Culture & Society* 27, no. 2-3 (2010): 217-18.
[81] Ibid., 218.
[82] Ibid., 219.

impact of climate change is such that it inverts much of the content of traditional views and long-held assumptions. It inverts assumptions about the desirability of growth economies, Biblical, Augustinian, Baconian, and broader masculinist Enlightenment convictions that humans rightly dominate nature,[83] and most simply, our collective ability to power our lifestyles using primarily fossil fuels. In at least one case, climate change might invert the very foundations of scientific work, where "global warming could make carbon dating impossible."[84]

Whereas the dominant climate imaginary figures climate change as another problem among many (even if the most staunch), beckoning for technical solutions, I take seriously the idea that climate change is unique, and that it changes – if not everything – a great many of our theoretical and practical assumptions. My starting point, from which I conceptualize climate change in Chapter 2, is that the presence of human-induced climate change inverts our understanding of *violence* itself. As I argue in detail in the next chapter, climate change is not a form of *direct* violence: there is no subject directly harming an object: no citizen directly diminishing the wellbeing of another citizen, foreign national, or future generation. Rather, climate change inverts our understanding of environmental violence from *direct* to *indirect*. As indirect violence, climate change is not easily confronted by the managerial and neoliberal approaches introduced here and further specified in Chapter 3: it is a concrete rather than abstract problem demanding that political responsibility and democratic engagement rush to the fore of our analyses.

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[83] Lynn White, Jr., "The Historical Roots of Our Ecologic Crisis," *Science* 155, no. 3767 (Mar. 10, 1967): 1203-1207.
[84] Heather D. Graven, "Impact of Fossil Fuel Emissions on Atmospheric Radiocarbon and Various Applications of Radiocarbon Over this Century," *PNAS* 112, no. 31 (2015): 9542-45.

Parsing out how we might go about thinking through such inversions is the task of the remainder of this dissertation, as intimated in the roadmap below.

V. Roadmap: Arguments, Chapters, Methods

Chapter 2, "Political Theory and Climate Violence," provides a conceptualization (or per Robert Porter and Iain MacKenzie, a dramatization) of climate change-as-violence that works as the basis for the remainder of my dissertation. There, I argue that we can and should conceptualize climate change as a problem of violence and that doing so casts doubt on the all-too-easy solutions proposed by techno-optimists without spilling over into apocalyptic depoliticization. Instead, I explore the term "indirect violence" as a broad conceptual apparatus through which to approach climate change politically. The chapter ends with the suggestion that, once thus conceptualized, we are better able to re-think the ethics and politics of climate change in novel ways (the subjects of Chapters 4 and 5, respectively).

Where the former is a conceptual chapter, Chapter 3 is more straightforwardly critical. "The Dominant Climate Imaginary" critiques the materially and ideologically dominant alternatives to thinking climate change democratically in the ways outlined in the conclusion of Chapter 2 and the bulk of Chapters 4 and 5. Here, I take a more sustained look (intimated in this introduction) at the problems with conceiving of climate change as primarily a technical problem and therefore focusing overwhelmingly on neoliberal and managerial solutions to it. Theoretical and practical techno-optimism pervades such approaches, depoliticizing climate change and allowing otherwise concerned subjects to self-abdicate any sense of responsibility for climate change and any drive to theorize it.

Going back to earlier critiques of technology (Martin Heidegger, Hans Jonas, Langdon Winner), I argue for a techno-realism that approaches new technologies as necessary but subordinate to a broader political response to climate change. Techno-realism, I suggest, accepts Timothy Mitchell's closing advice in *Carbon Democracy*, that ending the fossil fuel era depends on re-forming material conditions in order to support post fossil-fuel democracy less subservient to managerial and neoliberal logics.

Chapters 4 and 5 switch methodical gears from negative to positive critique with the goal of exploring how conversations about the political questions of responsibility and democracy are inverted by the indirect violence of climate change.

In Chapter 4, "Situating Responsibility," I look at contending views of what it would mean to take responsibility for climate change seriously. If a solution to climate change does not come entirely from technological advancements (or, I would suggest, even if it does), then climate change necessarily raises questions about responsibility. I argue here that two somewhat contradictory views of responsibility remain the most prevalent among those who think about climate change: individual and international responsibility. That is, when we think of who is responsible for stopping climate change, we usually locate answers in individual (and consumerist) behaviors, or in the global climate regime (i.e. states acting together in the model of the UNFCCC). I do not think these views are enough (again, given that climate change is a historical, structural, slow kind of violence). Instead I turn to various thinkers of responsiveness and relational responsibility. The chapter concludes that responsibility is always a relational concept, and that the indirect violence of climate change brings many relations into relief that

might serve as good starting points for both admitting responsibility for (past) climate change and accepting responsibility to prevent further (future) damage.

Finally, I look at the political question of democracy in relation to climate change. "Greenhouse Democracy," my 5th Chapter, asks what roles the idea and practice of democracy might have in the fight against climate change, as well as what kind of democracy might be useful. Here I look at recent conversations about democracy and climate change, and suggest that the focus on electoral, deliberative, and even radical views of democracy restrain its potential by excluding some of its important tasks. Greenhouse democracy, instead, starts from local resistances, everyday engagement with one's experiences, and enactments of responsibility even as it might ultimately seek to build horizontal, transnational forms of power and to expand democratic potentials in a climate-changed world.

Chapter 2: Political Theory and Climate Violence

I. Introduction

> So if we want to talk about violence and climate change – and we are talking about it … then let's talk about climate change as violence. Rather than worrying about whether ordinary human beings will react turbulently to the destruction of the very means of their survival, let's worry about that destruction – and their survival.[1]

In this chapter my primary goal is to provide a conceptual framework for thinking about climate change as violence, a framework that will underwrite each of the following chapters. Along the way, a secondary goal is to nudge an existing conversation about the relationship between climate change and violence from one in which climate change simply *leads to* increases in violence, to one wherein climate change *is itself* a form of violence, as Rebecca Solnit suggests. I am convinced that the latter is a better way to think about climate change in itself, but I also do this to get toward the third goal of the chapter: to open the possibility of bringing the often abstract and overwhelming phenomena of climate change 'out there' closer to everyday concerns or, in other words, closer to ethical and political considerations (topics of focus in Chapters 4 and 5, respectively). The bulk of the chapter is thus devoted to my primary and secondary goals, whereas the conclusion takes up the third.

A few political scenes might help to dramatize the distinction between the claim that climate change *leads to* violence and the claim I develop here, that climate change *is itself* violence. As I detail in Chapter 3, a prominent response to climate change at the international level has been to view the problem as demanding technological solutions,

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[1] Rebecca Solnit, "Call Climate Change What it is: Violence," *The Guardian*, April 7, 2014, accessed April 9, 2015, http://www.theguardian.com/commentisfree/2014/apr/07/climate-change-violence-occupy-earth.

such as instituting carbon offset markets in order to reduce greenhouse gases (GHGs).[2] One such plan involved the FACE Foundation, a Dutch organization, which planned to plant twenty-five thousand hectares of trees in a forest in Uganda. Once complete, this forest was to constitute a significant new carbon sink: as Mt. Elgon's newly planted trees would absorb GHGs from the atmosphere, so too would overall concentrations be brought down. Concerned states and consumers, furthermore, would offset their own emissions by supporting the management of the Ugandan forest. Specifically, a second Dutch company GreenSeat was to sell "carbon credits from Mount Elgon to people wanting to offset the emissions caused by flying."[3] Through the creation of this carbon-offset market, and through the proper technological management of these trees, global GHG concentrations would be reduced.

In preparing to convert Mount Elgon National Park into a more efficient carbon sink, the project waded into a long-standing conflict between the Uganda Wildlife Authority (UWA, who had partnered with FACE) and the Benet people. The Benet, an indigenous group, had depended on the forest for their survival since 1956, and had regarded the area as sacred for much longer. Despite ongoing land contestations between the Benet and the UWA, the project began as planned, leading to the forced removal of the Benet people from Mount Elgon. With regard to the Benet and other local groups, Chris Lang and Timothy Byakola report that:

> In order to keep villagers out of the national park, UWA's park rangers maintain a

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[2] I borrow and extend the following case, of Mount Elgon, from Adrian Parr, *The Wrath of Capital: Neoliberalism and Climate Change* (New York: Columbia UP, 2013): 31-3.
[3] Chris Lang and Timothy Byakola, *"A Funny Place to Store Carbon": UWA-FACE Foundations's Tree Planting Project in Mount Elgon National Park, Uganda* (Montevideo, Uruguay: World Rainforest Movement, 2006), 8.

> brutal regime at Mount Elgon. In 1993 and 2002, villagers were violently evicted from the national park. Since the evictions … UWA's rangers have hit them, tortured them, humiliated them, shot at them, threatened them and uprooted their crops.[4]

The UN-inspired attempt to reduce GHG emissions went forward without much tangible concern for, and indeed with violence directly applied to, the people most immediately impacted.

On the other hand, we might witness the plight of Kivalina, a small island off of Alaska's northwestern coast. In 2008 the City of Kivalina and the Iñupiat Native Village of Kivalina filed a lawsuit alleging that, *inter alia*, BP, Chevron, and the ExxonMobil Corporation should be held legally responsible for damaging the climate. In Kivalina in 2008, destruction stemming from climate change had begun to force the 400 inhabitants of Kivalina to consider relocation.[5] Rising sea levels and increased erosion from more frequent and drastic storms had helped forge agreement among local leaders and inhabitants that it would soon no longer be possible to remain. The damages from the lawsuit, if won, would have been put toward the relocation of all persons living on the island.

Following writers like Christian Parenti, we might be tempted to locate Mount Elgon

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[4] Ibid., 11.

[5] For a case study see Christine Shearer, *Kivalina: A Climate Change Story* (Chicago: Haymarket Books, 2011). See also the ultimately failed appeal at Native Village of Kivalina; City of Kivalina v. ExxonMobil et al., No. 09-17490 11641 (9th cir. 2011) http://cdn.ca9.uscourts.gov/datastore/opinions/2012/09/25/09-17490.pdf. For similarly positioned struggles, see *Stay and Defend* (http://aksik.org/content/stay-and-defend) and *The Island President*, dir. John Shenk (2011; New York: First Run Features, 2012), DVD.

National Forest, Uganda in the "tropic of chaos," that "new geography of violence"[6] produced by climate change. Throughout *Tropic of Chaos*, Parenti shows the ways in which "the social impacts of climate change are already upon us, articulating themselves through the preexisting crises of poverty and violence, which are the legacies of Cold War militarism and neoliberal economics."[7] Climate change intersects with the problems left in the wake of the cold war and its aftermath. In this way, Parenti demonstrates the virtues of approaching climate change as a problem that augments existing violence or, less often, introduces new violent conflicts. Along the way Parenti touches on the subject of Uganda, although his concern is to stress situations of violence there that are unrelated to Mount Elgon. After running through the colonial history of Uganda and its following period of brutal rule under Idi Amin Dada,[8] Parenti suggests that environmental and weather conditions intersected with these colonial histories and repressive political regimes to *worsen* violence that would have taken place regardless. In a context in which "from 1980 to 1982 the weather got even more intense [prior years had already brought increasing drought] as one of the two worst El Niño events of the century occurred,"[9] the violence of colonial histories and repressive political regimes came to the fore. Parenti thus forges a broader claim, that histories of changing weather and futures of changing climates augment[ed] direct eruptions of violence, such as when "two thousand hungry and often armed Ugandans crossed into the Turkana region of Kenya in search of food

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[6] Christian Parenti, *Tropic of Chaos: Climate Change and the New Geography of Violence* (New York: Nation Books, 2011).
[7] Ibid., 225.
[8] Ibid., 72-6.
[9] Ibid, 76.

and cattle."[10] Along with writers like Parenti who see in climate change a risk that already existing violences and tensions will be augmented, we might be tempted to read the situation in Mount Elgon National Park as one in which violences on the ground are made worse in light of a degraded climate.

Yet I think this reading, even or especially if it is right, misses a chance to see climate change as a form of violence in itself, along the lines that Rebecca Solnit's epigraph to this chapter asks us to do. This view is perhaps more clearly illustrated by the case of Kivalina. There climate change itself, rather than a constellation of groups attempting to construct a new market and thereby dispossessing the Benet of their land (or resource-scarce Ugandans rushing across the border to look for any available sources of livelihood), is the violent force that pushes the Iñupiat away from their home. Putting these two scenes together to form a backdrop helps bring into relief the ways in which many studies, bordering on determinist frameworks of climatological or geographical varieties, propose that climate change (and more specifically climate warming) *leads to* or *exacerbates* eruptions of direct violence.[11] It also allows us to see

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[10] Ibid., 77.

[11] The idea that climate shapes or determines human possibilities is an old one in Western thought. Foundational thinkers in this vein, who make stronger cases than do more recent thinkers like Parenti, stretch back at least as far as Montesquieu, onward through Alfred Crosby, up to Jared Diamond. Montesquieu was of course concerned not with the link between climate and violence *per se*, but with climate and its propensity to determine the kind of law a people will tolerate. This tolerance, furthermore, is physically determined for Montesquieu:

> Cold air contracts the extremities of the body's surface fibers … therefore, men are more vigorous in cold climates" (231); "Hot air, by contrast, relaxes these extremities of the fibers and lengthens them … put a man in a hot, enclosed spot, and he will suffer … a

It is not difficult to see how Montesquieu thus provides a springboard for racialized and racist claims about the superiority of cold, hardened Europeans, but this strays from my point in this chapter. See Montesquieu, *The Spirit of the Laws*, eds. Anne M. Cohler, Basia Carolyn Miller, and Harold Samuel Stone (Cambridge: Cambridge UP, 1989), part 3. For the other works mentioned see Alfred Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-*

how such studies miss an opportunity to make a stronger argument, one more useful for bringing the problem of climate change under democratic consideration.

My argument in this chapter is that climate change can be faithfully and fruitfully conceptualized as a form of *indirect violence* that is at once structural and slow. To get there, I first describe ways that political theorists have treated the concept of violence in order to describe political life or prescribe actions aimed at its smooth functioning. Conceptualizing climate change as violence, in this light, is also of intellectual interest to political theorists who are concerned to theorize violence more generally. Historically, Western political theories of violence have tended to focus on violence that is direct and intentional, and that is ultimately capable of being understood either as a political means or end. I show this by looking at several ways (in roughly historical order) of understanding violence politically: as a tool of the prince or state; as it relates to revolutionary actions; as it is recast by 20th century liberalism and its ideology of human

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1900 2nd ed. (Cambridge: Cambridge UP, 2004) and Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York: W.W. Norton & Co., 1997).

It is worth noting that Montesquieu's views on the relationship between "nature," broadly, and politics can be read in a more sympathetic way. Crina Archer, Laura Ephraim, and Lida Maxwell tell us that "unlike thinkers like Locke and Hobbes, who attribute a law like status to nature and ask that it both form and stand outside of politics, thinkers like Vico and Montesquieu portray nature and politics as mutually constituted and affirm the confluence of political activities with natural forces as the necessary condition for both law and projects to resist and transform it." I agree up to a point, that Montesquieu avoids the trap of deriving politics from a broad, even metaphysical conception of "nature" or "natural law" as do Hobbes and Locke, yet I think this starts to break down in cases like that mentioned above, wherein Montesquieu does suggest that particular instantiations of what we might call nature, such as climate, does determine politics to a great degree. In sum, while we might turn to Montesquieu for inspiration on how to edge away from designing politics in the shadow of what we take to be nature, he does not give us much reason to doubt that climate must necessarily shape politics. On this latter point I am in partial agreement with Montesquieu, so long as we downgrade "determine" to "potentially influence" which only requires us to acknowledge the commonsensical point that our environments and contexts more generally influence our lives, political and otherwise. See Archer, Ephraim, and Maxwell, "Introduction" in *Second Nature: Rethinking the Natural through Politics*, eds. Archer, Ephraim, and Maxwell (New York: Fordham UP, 2013), 11 and throughout.

rights, and, finally, as it is figured by thinkers (like Parenti) of environmental scarcity.

The problem of climate change inverts these received ways of thinking about violence as a direct and intentional phenomenon, even as reconceptualizing violence can help us think more critically about climate change. Rather than (only) suggesting that a warmer climate might lead to more direct violence, I suggest that an expanded theorization of violence reveals climate change as itself, at root, a form of violence. To this end I put Johan Galtung, Iris Marion Young, and Rob Nixon into conversation in order to draw out a concept of climate-change-as-indirect-violence. I end with an introduction of the ethical and political openings that this reconceptualization provides, a discussion that paves the way for the following chapters.

Before continuing, a brief mention of my approach in this chapter is useful. My use of "concept" and "conceptualization" here owes much to Cesare Casarino. As Casarino notes, "the function of a concept becomes intelligible in terms of this triangulation: concept, problem, solution … a concept may help at once a) in posing a problem adequately and b) in articulating a solution distinctly."[12] The creation of a concept or way of conceptualizing is of course only possible insofar as the material conditions for that concept exist. Yet the work of conceptualization also brings us some way toward theorizing solutions to the material problem that forms the ground from which the concept emerges. The rest of this chapter is, then, an attempt to conceptualize the materially emerging problem of climate change in a way that might help edge closer to, if not a "solution" that the dominant imaginary would recognize, a way of thinking of climate change as an everyday problem that requires response.

[12] Cesare Casarino, "Universalism of the Common," *Diacritics* 39, no. 4 (2009): 164.

Yet my method, evinced by my invocation of the struggles in Mount Elgon and Kivalina, also involves dramatization. In addition to an ordinary term, dramatization is a method recently expounded by Iain MacKenzie and Robert Porter. It is especially applicable to a study that seeks to show the political*ness* of climate change insofar as it seeks to bring non- or de-politicized realms of life into politics or, rather, to show how such things are indeed already political despite going unrecognized as such. In developing the concept of climate violence I am also dramatizing the problem of climate change in order to politicize it and, ultimately, democratize it. As MacKenzie and Porter describe it, dramatization is a method which implies theorists "need to start thinking like artists or, better still, along with artists, in bringing to life concepts that provoke, resonate, and allow us to meaningfully access the domain of the political."[13] In the remainder of this chapter my aim is to dramatize and conceptualize climate change in such a way as to make it an obvious locus of democratic contestation and address.

II. Political Theory and its Approaches to Violence

The history of political thought has generated many ways of thinking about violence. My purpose here is neither to thoroughly interrogate any one thinker, nor to offer a comprehensive catalog of political theories of violence. Rather than offer an exhaustive account (which would include, for example, Foucauldian accounts which see violence as

[13] Iain MacKenzie and Robert Porter, *Dramatizing the Political: Deleuze and Guattari* (New York: Palgrave Macmillan, 2011), 8. MacKenzie and Porter develop their claims through readings of Deleuze and Guattari. Yet as intellectually important as their claims are, I do not find it useful to delve into their specific explorations insofar as MacKenzie and Porter's basic point – that theorists ought to devote more attention to bringing concepts to life – stands alone.

constitutive or Bourdieuian ones which see it as symbolic),[14] I assess a few of the most prominent accounts that reflect our dominant views of political violence. Together, such accounts form a background against which to conceptualize and dramatize the ways that climate change requires a theorization of a different sort of violence than we are accustomed to thinking about ethically or politically. My claim here is that our received ways of thinking violence figure it as an intentional means to an intended end: something we choose to do, or protest against, in the name of producing a politics. To this end, let us briefly think back to the conception of violence developed by theorists of the state and its predecessors, by thinkers who interrogate violence as it relates to revolutionary potentials, and by post World War Two liberalism, before turning directly to the violence of climate change.

Violence and the State

The association of violence with the (eventually) sovereign state has a long history and remains, perhaps, our most influential way of thinking about violence. The reading of Niccolò Machiavelli that finds in his work the border between medieval and modern political thought insofar as he divorces (Christian) morality from the political use of violence by the prince offers an early iteration of this association.[15] From this vantage point, Machiavelli appears as a thinker for whom violence is a useful tool. Judith Shklar

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[14] See Saul Newman, "Terror, Sovereignty and Law: On the Politics of Violence," *German Law Journal* 5, no. 5 (2004): 569-84 and Karen Houle, "The Manifolds of Violence," *Hypatia* 21, no. 2 (2006): 184-95 for the former. For the latter, see Elliot Weininger, "Foundations of Pierre Bourdieu's Class Analysis," in *Approaches to Class Analysis*, ed. Erik Olin Wright (Cambridge: Cambridge UP, 2005), 82-118; Daly, "Republican Deliberation and Symbolic Violence in Rousseau and Bourdieu," *Philosophy & Social Criticism* 41, no. 6 (2015): 609-33.

[15] The classic and still influential reading of Machiavelli along these lines is in Sheldon Wolin, "Machiavelli: Politics and the Economy of Violence," in *Politics and Vision: Continuity and Innovation in Western Political Thought*, expanded ed. (Princeton: Princeton UP, 2004).

thus tells us that "Machiavelli had asked whether it was more efficient for a self-made ruler to govern cruelly or leniently, and had decided that, on the whole, cruelty worked best."[16] Shklar thus suggests that for the self-made leader, at least, cruelty and violence are indeed useful tools. Furthermore, even as this cruelty or violence is efficient for Machiavelli, it is also part and parcel of a wider political ethic, useful as well for bolstering the prince's ability (*virtù*) over and against the vicissitudes of *fortuna*. As Wolin suggests:

> To possess power was to be able to control and manipulate the actions of others and thereby to make events conform to one's wishes. But by mastery Machiavelli did not mean, as some commentators have implied, mere technical efficiency. The new science was intended as the basis for a new political ethic. Thus, to know the shape of events was to be in a position to exercise prudence or foresight; to select the type of action appropriate to a given situation was to possess a sensitive and discriminating intelligence which allowed for the weighing of several factors simultaneously, as well as a knack of imaginatively projecting possible consequences. The political condition demanded great resolution and decisiveness, because extreme and violent actions were often necessary. There was call, too, for courage in facing unexpected disasters brought by Fortuna.[17]

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[16] Judith Shklar, "Putting Cruelty First," *Daedalus* 111, no. 3 (1982), 18. Shklar points out that by the time we get to Montaigne and Montesquieu, in practice, Christian opposition to Machiavellian violence was less than robust: "for both Montesquieu and Montaigne, the Spaniards in the New World served as the ultimate example of public cruelty. It was the triumph of Machiavellism by those who claimed to be its chief opponents. Here, cruelty and pious pretense had joined to prove Machiavelli right" (19). Still the claims that Wolin makes about Machiavelli appear to hold true, and are useful in constructing ideal types of violence against which to theorize climatic violence.

[17] Wolin, "Machiavelli," 194.

Though this passage is wide-ranging, it usefully locates the Machiavellian place for violence: a place of necessity given the political condition of the prince or, in an anticipatory mode, the state.[18] Here the violence used is explicitly direct and intentional, a force used by the prince or his equivalent to prolong the life of the political unit for as long as possible in the face of near inevitable decay.

Though it depends on how one reads his work,[19] it does not seem overly controversial to situate Thomas Hobbes as continuing the Machiavellian association of the proper use of violence with the (now theoretically sovereign) state. It is also fair to suggest that Hobbes's conception of violence is again primarily direct and intentional. To be sure, citizens in the state of nature used violence because of, Hobbes famously stated, competition, diffidence, and glory: "The first maketh men invade for gain; the second, for safety; and the third, for reputation."[20] Yet, of course, Hobbes reads these causes of the use of violence not as legitimate in themselves, but as legitimating a contract that institutes an absolute sovereign. They are found in Chapter XIII, titled "Of the Natural Condition of Mankind, *As Concerning Their Felicity, and Misery*,"[21] suggesting that they are of a first nature to be moved away from rather than an artifice in which to rest. They also immediately precede another of Hobbes's famous passages, in which he attributes to

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[18] A second major take on Machiavelli reads a "democratic turn" in his work. I am sympathetic to this reading, although it leaves us some distance from Machiavelli as a thinker of violence *as such*. For a recent contribution to this work, see Boris Litvin, *"*Mapping Rule and Subversion: Perspective and the Democratic Turn in Machiavelli Scholarship,*" European Journal of Political Theory* (August 17, 2015): doi: 10.1177/1474885115599894.

[19] Mary Dietz, for example, reads Hobbes as a thinker of citizen virtue rather than primarily of sovereignty. See Dietz, "Hobbes's Subject as Citizen" in *Thomas Hobbes and Political Theory*, ed. Mary Dietz (Lawrence, KS: University Press of Kansas, 1990), 91-119.

[20] Thomas Hobbes, *Leviathan*, ed. Edwin Curley (Indianapolis, IN: Hackett Publishing Company, 1994), 76.

[21] Ibid., 74.

these sources of violence the war of all against all that takes place in lieu of the "civil state" and, in turn, justifies the absolute sovereign. Recall that for Hobbes:

> It is manifest that during the time men live without a common power to keep them all in awe, they are in that condition which is called War, and such a war as is of every man against every man. For War consisteth not in battle only, or the act of fighting, but in a tract of time wherein the will to contend by battle is sufficiently known … so the nature of war consiteth not in actual fighting, but in the known disposition thereto during all the time there is no assurance to the contrary. All other time is Peace.[22]

For Hobbes the use of violence by individuals amounts to evidence for the need of a sovereign power to pacify the people and thereby provide for peace.[23]

The *true* use of violence with regard to citizens is thus to "keep them all in awe." Hobbesian political society is built on a contract through which the "natural" sovereignty of subjects is bound together and transferred to a sovereign representative who is not (or no longer, from that point onward) a part of the community. The ultimate role of violence, held by the post-contract sovereign, is to produce security and stability: "For the laws of nature … of themselves, without the terror of some power to cause them to be observed, are contrary to our natural passions, that carry us to partiality, pride, revenge,

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[22] Ibid., 76.

[23] The exception is, of course, any case in which an individual's life is threatened. In this case, resistance up to and including violent resistance is justified. To this end Hobbes writes that "a man cannot lay down the right of resisting them that assault him by force, to take away his life, because he cannot be understood to aim thereby at any good to himself" (82) and claims that "A covenant not to defend myself from force by force is always void. For … no man can transfer or lay down his right to save himself from death, wounds, and imprisonment (the avoiding whereof is the only end of laying down any right), and therefore the promise of not resisting force in no convenient transferreth any right, nor is obliging" (87).

and the like. And covenants without the sword are but words, and of no strength to secure a man at all."[24]

The Hobbesian view of violence, then, which remains influential, is twofold. On the one hand, in the state of nature, violence is limited in scope and performed by individuals. After contracting out of the state of nature, violence is the domain of the sovereign, who offers security to the commonwealth, itself secured by its ability to use violence to punish and protect. In either case violence is direct; in the legitimate latter case, it is to be used only by the sovereign (again, with the rare exception of defending one's life from termination).

If Machiavelli and Hobbes started modern political theory down the road of thinking about violence as belonging to the state, Max Weber makes this connection explicit in a time in which the modern state form had moved a long way toward maturity. Of interest here is the fact that each of these thinkers saw fit to express their proximity to "science," Machiavelli by proposing a realism which divorced political violence from religious concern, Hobbes by turning to a geometric method, and Weber by delivering lectures explicitly structured around the vocation of science generally, with politics as one such science. While each author surely operates within a different and distinct historical contextualization of "science,"[25] we might speculate that each use brings with it the idea that violence is a useful tool (at least if used in the right way, by the right people or

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[24] Ibid., 106.

[25] For Machiavelli, the new science of politics suggested, following Wolin, the autonomy of the political. For Hobbes, the new science had at least partially to do with method, specifically the geometric method of proceeding from smaller to larger parts – from definitions to truths – through which Hobbes approached the world. For Weber, finally, science is located in the German concept of *Wissenschaft* which connotes the deep and sustained study of a subject less than it does one scientific method or another.

political office, in the right amount, and so on). Violence is used by the state to ensure that it is used properly and therefore scientifically: in the right proportion, with the right intentions, and, hopefully, attaining the right effect. To be sure, following Wolin, this is the case with Machiavelli, and in Hobbes this point is fairly explicit. In Weber it is once again clearly expressed in one of his most oft-noted ideas: that "the state is the form of human community that (successfully) lays claim to the *monopoly of legitimate physical violence* within a particular territory–and this idea of "territory" is an essential defining feature … the state is regarded as the sole source of the "right" to use violence."[26] Where Machiavelli and Hobbes focused on sciences of politics in which principalities and then commonwealths used violence to their own ends (which may or may not have overlapped with the ends of their subjects), Weber, lecturing in 1919, made explicit that it was the modern *state* as such to which the legitimate use of direct, physical violence belonged.

Thinkers in this lineage see violence as a means to be used by the state or its equivalent to achieve political ends. Violence here is direct, top-down, and calculated. More importantly, it is intentional. I like the language Didier Fassin uses to summarize Weber, language which also serves to summarize the state-centric theory of violence passed down by Machiavelli, Hobbes, *and* Weber. "The state has a foundational relation with violence," he writes. "In the ideal-typical social contract that links it to individuals, the state is supposed to protect society from violence through law and law enforcement, and in exchange it is granted the monopoly of legitimate violence."[27] Or bluntly and more

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[26] Max Weber, "Politics as a Vocation," in *The Vocation Lectures*, trans. Rodney Livingstone (Indianapolis, IN: Hackett Publishing Company, 2004), 33.
[27] Didier Fassin, "The Trace: Violence, Truth, and the Politics of the Body," *Social Research* 78, no. 2 (2011): 281.

darkly, per Elizabeth Frazer and Kimberly Hutchings, "Machiavelli, Hobbes and Weber (and others) look at politics, more or less, from the point of view of the political dominator, the state organization."[28] This organization, in turn, intentionally makes use of violence, a point that dominates the state-centric view and precludes it from having to theorize violence in its other potential extensions.

Revolutionary (Non)Violence

Hannah Arendt and Franz Fanon can be profitably put into conversation in order to start to move toward 20th century views of violence. Their views contain important differences, even as they coalesce around a set of questions from which we can read a common understanding of what violence is: is violence to be used or not? by whom? what are its effects? when or where does it take place? A passage from Arendt serves well as a window into these questions. Speaking of the first generation to mature under the shadow of the atomic bomb and in the aftermath of concentration camps and genocide, Arendt writes:

> Their first reaction was a revulsion against every form of violence, an almost matter-of-course espousal of a politics of nonviolence. The very great successes of this movement, especially in the field of civil rights, were followed by the resistance movement against the war in Vietnam, which has remained an important factor in determining the climate of opinion in this country. But it is no secret that things have changed since then, that the adherents of nonviolence are on the defensive, and it would be futile to say that only the "extremists" are

[28] Elizabeth Frazer and Kimberly Hutchings, "On Politics and Violence: Arendt Contra Fanon," *Contemporary Political Theory* 7 (2008): 91.

> yielding to a glorification of violence and have discovered–like Fanon's Algerian peasants–that "only violence pays."[29]

Arendt's words here portray an appreciation of nonviolence, foreshadowing her ultimate position in "On Violence," that violence cannot heal the wounds it has created.[30] As will be discussed below, they also anticipate the way in which nonviolence and, indeed, the liberal fixation on preventing certain kinds of violence, arose out of a "revulsion" against WWII. Third, this passage points to Arendt's disagreement with Fanon, who sees a role for violence in the domestic, revolutionary setting. Regardless of these differences, a consideration of these thinkers will reveal the elements they share in their conceptualizations of violence: as directly applied and, much like the ethical new sciences of Machiavelli, Hobbes, and Weber, as an intentioned means to an end.

Arendt herself, in "On Violence" and elsewhere, was concerned to separate the concept of violence from terms that philosophers and laypeople alike often use as

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[29] Arendt, "On Violence," in *Crises of the Republic* (New York: Harcourt Brace & Company, 1972), 116. It is difficult to write about Arendt's views of (student) militants without noting and disavowing her problematic double views on white and black militants. Many passages place these views into plain view; they can be found in appendices VI-VIII to "On Violence." I quote another one to remind my reader of this element of Arendt's thought: "It seems that the academic establishment, in its curious tendency to yield more to Negro demands, even if they are clearly silly and outrageous, than to the disinterested and usually highly moral claims of the white rebels, also thinks in these terms and feels more comfortable when confronted with interests plus violence than when it is a matter of nonviolent "participatory democracy" (121). Arendt here shames black militants for being violent, for making "silly outrageous demands," while praising white militants for their disinterested and moral claims, which she seems to suggest are more universal and abstract, and therefore more valid.

On the general race problem in Arendt, see Kathryn Gines, *Hannah Arendt and the Negro Question* (Bloomington, IN: Indiana UP, 2014) and Jill Locke, "Little Rock's Social Question: Reading Arendt on School Desegregation and Social Climbing," *Political Theory* 41, no. 4 (2013): 533-61.

[30] Arendt, "On Violence," 122.

synonyms for it: power, strength, force, and authority.[31] Her main concern is to distinguish violence, which requires technological implements and "is distinguished by its instrumental character,"[32] from power, which "corresponds to the human ability not just to act but to act in concert" and is "never the property of an individual" but exists always in a collective or group.[33] Violence here is as intentional as it is in the history of Western political thought on which Arendt builds (indeed, violence as intentional or as involving usefulness and planning sticks to almost every mention Arendt makes of the word), and as such does not get us to that of climate change. Indeed if we were to stick strictly to Arendt's typology, we might read climate change as a *force* rather than as a *violence*:

> *Force*, which we often use in daily speech as a synonym for violence, especially if violence serves as a means of coercion, should be reserved, in terminological language, for the "forces of nature" or the "force of circumstances" (*la force des choses*), that is, to indicate the energy released by physical or social movements.[34]

Insofar, however, as climate change inverts and scatters our theoretical concepts, I here suggest that we retain "violence" when thinking about climate change in order to

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[31] Ibid., 143-4.
[32] Ibid., 145. Witness as well Arendt's statement that "Violence is by nature instrumental; like all means, it always stands in need of guidance and justification through the end it pursues" in ibid., 150.
[33] Ibid., 143.
[34] Ibid., 143-4. Indeed Arendt consistently thinks about these natural or circumstantial "forces" in a somewhat surprisingly apolitical way. This extends to problems *like* climate change: "the disintegration processes which have become so manifest in recent years–the decay of public services … *the pollution of air and water*–are the automatic results of the needs of mass societies that have become unmanageable" (181). In an intuitive sense Arendt is right here. Yet she is too willing to give up on the promise that politics might have some ways of countering the 'automatic' processes of mass society.

hold onto its urgency and the extent to which it actively harms human and nonhuman communities alike, even as we recognize that this particular instance of violence is no longer the direct, intentional phenomena that political theory has equipped us to consider. To be sure, Arendt's context – a century of revolution and war – helps to explain her fixation on direct forms of violence and her will to define violence as such; it needn't, however, determine that we do so as well.

To Arendt, Franz Fanon either "glorified violence for violence's sake"[35] or he thought that "only violence pays."[36] Commenting on Arendt and Fanon, Christopher Finlay writes that "instrumental justification … appears as a key criterion for Arendt in distinguishing her account of permissible violence from the theories of Sorel, Fanon and others."[37] If Arendt's first reading is right, then there is little to say about Fanon other than that he, personally, was attracted to violence. Any reader of Fanon who pays attention, however, will recognize the weakness of this first reading.[38] Instead, we should read Fanon along the lines of Arendt's second reading of him, as someone who sees that violence pays: that it has concrete uses, that is *is* a useful, direct tool or phenomena.[39] Like Arendt, then, and

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[35] Ibid., 162.
[36] Franz Fanon, quoted in ibid., 116.
[37] Christopher J. Finlay, "Hannah Arendt's Critique of Violence," *Thesis Eleven* 97, no 1 (2009): 29.
[38] Indeed even Arendt seems to suggest that this reading of Fanon wouldn't hold up, and applies it instead to the student movements in the US that were associated with the Black Panthers and who were under the influence of Fanon's writings. In reference to *The Wretched of the Earth*, Arendt writes "I am using this work because of its great influence on the present student generation. Fanon himself, however, is much more doubtful about violence than his admirers" ("On Violence" 116fn19).
[39] Though I will partially grant another of Arendt's points about Fanon, that he was "motivated by a much deeper hatred of bourgeois society and [was] led to a much more radical break with its moral standards than the conventional Left, which was chiefly inspired by compassion and a burning desire for justice" (162). My only objection is that the "bourgeois society" about which

like Machiavelli, Hobbes, and Weber before them, Fanon sees an instrumentality in violence conceived as an intentional and direct, even instrumental, thing. Furthermore, each of these thinkers connects this instrumentality to broader ethical frameworks and uses and abuses of violence. Per Finlay, Fanon adds to his "legitimist and determinist lines of justification a further, instrumentalist line which, at least at first glance, seems to be consistent with Arendt's view."[40] Despite disagreement, the two seem to hold in common the view that violence is at least primarily instrumental. For Arendt this comes in the form of its dependence on tools and technologies; for Fanon the instrumentality of violence has to do with broader postcolonial and anticolonial goals.

Fanon's "On Violence," the lead chapter in *The Wretched of the Earth*, is well known. There, Fanon argues for the usefulness of counter violence as a force against colonial violence, a usefulness that also includes an ethical injunction that the colonized world be free from the colonizer. Where Fanon differs from Arendt, and indeed goes beyond the other theorists of violence discussed in this section, is in his explicit recognition of the "atmospheric" or structural violence of the colonial setting.[41] While one thread of Fanonian violence is the instrumental and direct form discussed above, a second form also inheres in his writings. Consider his description of the colonial setting:

> In the colonial world, the colonized's affectivity is kept on edge like a running sore flinching from a caustic agent. And the psyche retracts, is obliterated, and finds an outlet through muscular spasms that have caused many an expert to

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Arendt speaks never seems to have been inspired by a "burning desire for justice," at least not in the context of Fanon's Algeria.

[40] Finlay, "Arendt's Critique," 30.

[41] Franz Fanon, "On Violence," in *The Wretched of the Earth*, trans. Richard Philcox (New York: Grove Press, 2004), 31 and throughout.

> classify the colonized as hysterical. This overexcited affectivity, spied on by invisible guardians who constantly communicate with the core of the personality, takes an erotic delight in the muscular deflation of the crisis.[42]

Here Fanon draws on his psychoanalytic ("embodied and libidinal")[43] approach to the colony in order to connect a background atmosphere of violence to concrete and particular impacts on the colonized's psyches, muscular systems, affect, and so on. In doing so he suggests that decolonial counter violence, intentional and direct, is closely bound to an atmosphere of violence imposed by the colonial administration and by the enactments of superiority on behalf of the colonizer (along with its flip side, which "dehumanizes the colonial subject").[44] In adding the atmospheric dimension, however, Fanon only starts to radically change the traditional view of violence. Rather, he makes a psychological and ethical case that counterviolence is defensible. He does so in order that counterviolence might be made intelligible to what Arendt would call the "conventional Left" and desirable to the decolonial left in Algeria. Violence in itself remains a direct and intentional tool.

Liberal Violence

In late 20th century iterations of political thought, and in keeping with globally hegemonic norms, violence comes to be understood in a largely liberal vein. Just as Arendt wrote her reflections "against the background of the twentieth century … a century of wars and revolutions,"[45] late 20th century liberalism is grounded in post WWII

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[42] Ibid., 19.
[43] Frazer and Hutchings, "On Politics and Violence," 93.
[44] Ibid., 7.
[45] Arendt, "On Violence," 105.

and especially post-holocaust experience and ethics. Writing on the ways that liberal violence interacts with private military and security companies, Andrew Alexandra speaks matter of factly about "the emergence of a broadly liberal conception of justified political violence during the twentieth century and especially after World War II" according to which "an individual's basic rights–such as the rights to bodily integrity and autonomy–entail that others are not justified in using violence either as an end in itself or as a means to the achievement of some pre-existing end, where doing so would violate the rights of the subject of violence."[46] Robert Meister writes, with more vivid language and taking human rights discourse to be a generalized and liberal response to past evils, that:

> Unlike earlier versions of human rights that sought to hasten the advance of social equality, today's commitment to human rights often seeks to postpone large-scale redistribution. It is generally more defensive than utopian, standing for the avoidance of evil rather than a vision of the good …. By the time the cold war ended … references to the twentieth century as "a century of genocide" had become commonplace, and its atrocities were condemned as incontestable paradigms of evil that transcended cultural, religious, and ideological difference. The denunciation of physical atrocity *as such* became an essential element in the fin de siècle conception of what it means to be human, and the foundational premise of human rights advocacy.[47]

Inherent in this conception liberal violence, to Alexandra, and of human rights

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[46] Andrew Alexandra, "Private Military and Security Companies and the Liberal Conception of Violence," *Criminal Justice Ethics* 31, no. 3 (2012): 159-60.
[47] Robert Meister, *After Evil: A Politics of Human Rights* (New York: Columbia UP, 2011), 1.

discourse, to Meister, is a picture of violence as almost exclusively *physical* and direct, and the parallel conceptualization of a response to such violence as being comprised of defensive (or in the neoconservative logic, preemptive) reactions rather the utopian yearnings that earlier (Marxist and non Marxist) political actors had envisioned. My purpose in this section is to show the ways in which liberal conceptions of violence more broadly see it as a physical problem, one applied to individual bodies or collections of individual bodies rather than, say, to communities, cultures, or even to contending visions of and ideologies for political life.[48] As important as it is to reduce such instances of direct, physical violence, thinkers who decline to go beyond it miss much of what would otherwise concern them: instances of harm and deprivation that are only visible or intelligible once indirect violence against groups is considered.

Where Arendt was concerned to think through the violence of the 20th century in order to ultimately ask what a *positive* response to violence might look like in the time of student movements facing identity crises in the move from the late 1960s to early 1970s, as Meister suggests, postwar liberalism's concerns with violence have been sounded in a primarily negative key. The goal of liberal politics and ethics has been to prevent harm to

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[48] The association of violence with physical harm applied to individuals predates contemporary liberalism, of course. John Stuart Mill's harm principle contains the same assumptions. In *On Liberty*, Mill writes that "The object of this Essay is to assert one very simple principle, as entitled to govern absolutely the dealings of society with the individual in the way of compulsion and control, whether the means used be physical force … or the moral coercion of public opinion. That principle is, that the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection. That the only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others." "On Liberty," *On Liberty and Other Writings*, ed. Stefan Collini (Cambridge: Cambridge UP, 2012), 13. Mill's harm principle thus figures violence as "physical force" (even as he includes moral coercion along side it) just as his concern with it is that it be applied to too many individual bodies, for the wrong reasons, etc.

individual bodies, with violence conceived as direct threats to such individuals. In turn, harm afflicted on individual bodies has come to take up much of the globalized collective imaginary of violence (found, for example, in visions of global governance and expressed doctrinally in the Responsibility to Protect) to the extent that it has become the *de facto* way of defining and understanding violence not only to self-identified liberals but also to all of us who act and live *as if* our beliefs and worldviews were indeed inherited from liberalism.

Another way of making this last point is to say that, in terms of how we understand violence, we are all liberals now. Per Raymond Geuss, "liberal ideas permeate our social world and our everyday expectations about how people and institutions will and ought to act; they constitute the final framework within which our political thinking moves."[49] As such, the liberal view of violence is rightly positioned alongside those views previously discussed, as part of the background against which climate change as violence might clearly be seen. Judith Shklar and John Rawls are two of the most prominent and most sophisticated postwar liberals: to get a good grasp on the theoretical foundations of liberal violence, I now turn to their thoughts.

Shklar's connection to liberalism and her standing as one of liberalism's finest and most formidable defenders "without illusions" is patently clear. Per Quentin Skinner, "Dita always presented herself in her own political writings as a liberal: as someone

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[49] Quoted in John Meyer, *Engaging the Everyday: Environmental Social Criticism and the Resonance Dilemma* (Cambridge, MA: MIT Press, 2015), 29. Meyer's point in quoting Geuss is to refute him, and to argue that, at the level of the everyday, even liberal societies are made up of a great number of practices both liberal illiberal and aliberal, and that focusing directly on such practices removes the necessity of deciding whether or not "liberalism" as such matters to any great degree. For this argument, see Chapter 2 of *Engaging the Everyday*, "We Have Never Been Liberal."

whose historical interests centered on the origins of liberalism, and whose main concern as a moralist was to vindicate what she eventually called, in a now-famous phrase, the liberalism of fear."[50] This means that Shklar's work is a valuable resource for examining how liberalism came to think about itself generally. Her views on the centrality of violence, while not themselves simple or simplistic, can be neatly read out of her 1982 essay "Putting Cruelty First."[51]

Shklar's move of putting cruelty first, along with her take on violence, comes out of a revolt against the Machiavellian view discussed above. Where Machiavelli accepts the use of violence by the prince, Shklar's move is to ask what becomes of the recipient of such violence:

> In *The Prince*, Machiavelli had asked whether it was more efficient for a self-made ruler to govern cruelly or leniently, and had decided that, on the whole, cruelty worked best. Montaigne raised the question that the prince's victims might ask: Was it better to plead for pity or to display defiance in the face of cruelty? There are no certain answers, he concluded. Victims have no certainty … putting cruelty first was thus a reaction to the new science of politics.[52]

In this staged encounter, Shklar is doing more than putting Montaigne and Machiavelli into conversation in the service of historical interest. Rather, she is espousing and giving form to the liberal view in which violence applied to the individual, which might always appear arbitrary, is the worst possible thing, with "nothing above it, and with nothing to

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[50] Quentin Skinner, "Thomas Hobbes's Antiliberal Theory of Liberty," in *Liberalism without Illusions: Essays on Liberal Theory and the Political Vision of Judith S. Shklar*, ed. Bernard Yack (Chicago: University of Chicago Press, 1996), 149.
[51] Shklar, "Putting Cruelty First."
[52] Ibid., 18.

excuse of forgive" it.[53] While it was developed over and against Machiavellianism, however, Shklar's understanding of cruelty (and the violence that constitutes cruelty), mirrors Machiavelli's. Rather than offering a different conceptualization, the liberalism of fear simply switches moral sides in arguing, in the mold of Mill, that violence ought be kept to a minimum and that unnecessary violence is a stain on liberal society.

Rawls is notable not only for the extent to which his views of violence conform with how I have been discussing liberal violence, but also for the paucity of the term in his work. In *Political Liberalism*, for example, I count two uses of the term. The first comes early, in the claim that "the wars of this [20th] century with their extreme violence and increasing destructiveness, culminating in the manic evil of the Holocaust, raise in an acute way the question whether political relations must be governed by power and coercion alone."[54] Rawls here explicitly raises the problem of violence by reference to the Holocaust, even as his questioning leads him to the prospect, if not the conviction, that such violences might be controlled, dispelled, or perhaps prevented by coercive state power.

The second appearance in *Political Liberalism* comes nearer to the end of Rawls's reflections, and holds that "a well-designed constitution tries to constrain the political leadership to govern with sufficient justice and good sense so that among a reasonable people such incitements to violence will seldom occur and never be serious."[55] Situating violence as a problem of and for constitutionalism, Rawls's second mention turns from violence that is external to an individual state (as in his first use) to violence internal to a

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[53] Ibid., 17.
[54] John Rawls, *Political Liberalism*, expanded ed. (New York: Columbia UP, 2005), lx.
[55] Ibid., 336.

liberal society. Within the liberal state, he suggests, any violence should be able to be taken care of through constitutional design aimed at restraining leadership to such a degree that it will not be able to produce unreasonable amounts of violence nor able to repress would-be perpetrators of violence to an undue degree.

In both Shklar and Rawls, *the* thinkers of 20th century liberalism, violence is imagined as a direct result of one party intending to and succeeding in harming another. Where the legitimacy of violence so central to early modern attempts to situate it in a science of politics has dropped out of the picture, a liberal ethics crops up in postwar liberalism that insists on putting cruelty, and the direct violence that inheres in cruelty, above other forms of harm. Nowhere in Shklar or Rawls, then, do we find any direct grounds for challenging our received interpretation of violence as a direct and intentional force.

Violence Augmented? Environmental Scarcity and Climate Change

Where such thinkers have offered sweeping theories of violence, locating violence in the state, in moments of resistance, or in attacks on individual and thereby individuated bodies (putting cruelty first "leads to an ethic for isolates," per Shklar),[56] scholars who make arguments about the relationship between environmental degradation or climate change and violence have tended, with little exception, to decline to think deeply about their own use of "violence."[57] Rather, they have tended to look for empirical connections, or theories that explain such connections, between environmental degradation and the escalation of direct, intentional eruptions of violence. In other words, while the location

[56] Shklar, "Putting Cruelty First," 22.
[57] A welcome exception, by which I am obviously influenced, is Vandana Shiva, *The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics* (London: Zed Books, 1991).

of legitimate violence in the state has drifted out of political theoretic appraisals, the understanding of violence as direct and intentional has not been interrogated. Along with Parenti's work discussed above, Thomas Homer-Dixon, in an oft-cited and paradigmatic work of this sort, characterizes it nicely. He situates his own *Environment, Scarcity, and Violence*, an early work in this approach, as an attempt to focus on "how environmental stress affects *violent* national and international conflict."[58] This approach, to Homer-Dixon, "can say a good deal about how and where environmental stress–or what I have come to call "environmental scarcity"–contributes to social breakdown and violence."[59]

Where the political theorists discussed above – despite important historical and contextual differences – agreed in conceptualizing violence as direct and intentional, we can now see how proponents of what we can now call the environmental scarcity approach accept a quite similar (and often implicit) definition of violence. Thinkers like Parenti and Homer-Dixon[60] see the violence of climate change as something along the lines of (armed) conflict in which one agent or set of agents harm another in order to secure access to resources (in the face of real or imagined scarcity).[61] Yet in the case of climate change, to say nothing of broader environmental concerns, there is more work for

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[58] Thomas Homer-Dixon, *Environment, Scarcity, and Violence* (Princeton: Princeton UP, 1999), 3.
[59] Ibid., 4.
[60] Along with a great many other authors. For a few examples, see Hans Günter Brauch and Jürgen Scheffran, "Introduction: Climate Change, Human Security, and Violent Conflict in the Anthropocene," in *Climate Change, Human Security and Violent Conflict*, ed. J. Scheffran et al. (Berlin: Springer-Verlag, 2012), 3-40 and H.P. Harrod and D.L. Martin, "The Bioarchaeology of Climate Change and Violence: A temporal and Cross-Cultural Approach," in *Bioarchaeology of Climate Change and Violence* (New York: SpringerBriefs in Anthropology and Ethics), 1-11.
[61] It is symptomatic that Parenti mentions Ugandans crossing the border to claim resources from neighboring Kenya rather than something like the more complex case of dispossession that took place at Mount Elgon.

the political theorist to do in conceptualizing violence. Where thinkers from Machiavelli to Rawls (despite important differences) agreed that violence was intentional and direct, I aver that we now need to invert our conception of violence in light of unintended consequences of the material, social, and political constellations of neoliberal capitalism in which humanity finds itself unevenly positioned and from which a changing climate emerges. The problem with arguments put forward by Parenti, Homer-Dixon, and others is not that they are *wrong*; it is that they are *one-sided* insofar as they look at the violent effects of climate change but not the violence of climate change itself. Regardless of whether or not a warming climate will mean more direct violence, another problem is raised by climate change: the dislocations, disruptions, and dispossessions that climate change is causing and will continue to cause are, by any measure, violent. Contrary to more familiar forms of violence, though, such as those said to increase in times of scarcity, they lack clearly defined (or better yet easily definable) agents and the intentionality that can be attributed to such agents. Climate change is itself the violence that does the harm; it stands in for the agent in those forms of violence that are more familiar historically speaking.

In my introductory chapter I suggested that climate change inverts and pressures us to alter some of our dearest assumptions in political theory. Violence is a case in point: the violence of climate change is clearly not the intentional violence of war, of the state, of attempts to change the course of history through revolution, or of the sort applied to individual and individuated bodies. It does not accord with what Yves Winter calls "positivist conceptions of violence," which "restrict violence to the intentional, direct,

immediate, and visible infliction of physical harm, the assault or encroachment on the physical integrity of another human being or his or her property."[62] Yet as Kivalina shows us, it clearly *is* violence. Likewise, ours is a time (in the American political context, at least) in great need of ways to think about violence without intention – to think of violence beyond these inherited definitions. Frazer and Hutchings, writing on Arendt and Fanon, summarize the two views of violence against which I wish to define the violence of climate change in the remainder of this chapter. They note that:

> For some political theorists and philosophers, it is taken for granted, one way or another, that violence and politics are inextricably intertwined. For others, it is crucial to keep the two clearly apart, and to set politics up – conceptually, theoretically, practically – as antithetical to violence.[63]

Yet the violence of climate change is neither direct nor intentional. Rather, it is has to do with unintended consequences: it arises out of myriad (productive and consumptive; everyday) behaviors that are often spatially and temporally distant from its effects.[64] I suggest that we can refer to this kind of environmental violence as such when, because of environmental degradation – in this case GHG emissions – harm is inflicted on

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[62] Yves Winter, "Violence and Visibility," *New Political Science* 34, no. 2 (2012), 196.
[63] Frazer and Hutchings, "On Politics and Violence," 90.
[64] I am inspired by John Meyer to use the language of consequences / consequentialism. Drawing on James Dewey, Meyer writes that "By directing our attention to the consequences of human actions, Dewey argues that the very definition of "the public … consists of all those who are affected by the indirect consequences of transactions to such an extent that it is deemed necessary to have those consequences systematically cared for." In Meyer, *Engaging the Everyday*, 85. I will return to this conception of "the public" in my fifth chapter. For now suffice it to say that my conceptualization of climate change as violence owes much to this idea that we ought look at consequences of actions rather than (only) intentions when adjudicating political claims and attempting to politicize (otherwise purely scientific, environmental, or technocratic) issues such as climate change.

individuals, communities, or cultures, and when their state of being is thereby impacted.[65] Environmental violence, therefore, cannot be coupled to or decoupled from *politics* at will (as can some of the intentioned kinds of violence described above). Rather, environmental violence *is* political insofar as its causes arise in one time and place and its impacts descend in another. It involves relations of power between disparate peoples, power that is at once economic, social, physical, and political.

In what follows, I conceptualize the violence of climate change more concretely. I see it operating in three primary ways (though it is important to note that these are not the only possible ways): dislocation, disruption and dispossession. Dislocation occurs when, as in the case of Kivalina, a set of people are made to leave their place of residence because of a degraded environment.[66] Dispossession is more pointed. The case of Mount Elgon, the UWA, and the Benet people provides a paradigm case where, due to attempts to respond to climate change, a people is forcibly removed from its land in order that climate responses may be instituted. Disruption is more broad than either, and has to do with interruptions to well-being, to ways of life, to health, and so on. Each of these, in interrelated ways, arises out of the indirect and unintended violence of climate change to which I now turn directly.

III. A Violence Indirect and Unintended

In order to shine light on violence that is largely invisible from the perspective of the

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[65] Thanks to Joan Tronto for this formulation, and for pushing me to define my use of violence more generally.

[66] For a similar example that uses the language of *displacement* rather than *dislocation*, and is set against the backdrop of Katrina, see Peter Cannavò, "In the Wake Of Katrina: Climate Change and the Coming Crisis of Displacement" in *Political Theory and Global Climate Change,* ed. Steve Vanderheiden (Cambridge, MA: MIT Press, 2008), 177-200.

history of Western political thought discussed above, I now turn to a more recent set of thinkers, albeit one that stretches back to the late 1960s, who provide conceptual leverage with which to pry open those sorts of violence that are neither direct nor intentional. In contrast to the legacies discussed above, these thinkers allow for a theorization that helps us grasp conceptually the violence of climate change, my ultimate task in this chapter. To this end, Johan Galtung's theory of structural violence opens up the possibility that violence happens apart from clearly defined agents. Iris Marion Young, likewise, helps flesh out the ethical implications of structural violence-as-injustice. And by tweaking Galtung's structural violence, Rob Nixon's writings on slow violence reveal an important temporal dimension of environmental violence that brings us closer to the problem of climate change. Each of these approaches help us to move safely away from the pitfalls provocatively raised by Ruth Miller in a somewhat different context. There, she poses an important question: "Why do even the most careful and critical descriptions of violence, and even those most wary of models of autonomous sovereign subjectivity, seem so often reducible to descriptions of victims, of perpetrators, and of methods of helping or punishing them?"[67]

I do not advocate that analyses of climate change completely abandon questions of agency, victims, perpetrators, and so on, nor do I think methods of helping those impacted by the violence of climate change or punishing those most directly responsible should be abandoned (these questions are discussed in my Chapters 4 and 5). Yet I *am* sympathetic to the spirit of Miller's question, and suggest that a conceptualization of

[67] Ruth Miller, "Violence without Agency," in *Performances of Violence*, eds. Austin Sarat, Carleen Basler, and Thomas Dumm (Amherst, MA: University of Massachusetts Press, 2011), 43.

climate change as violence ought to decenter these categories in order to slowly edge toward making ethical and political claims that get beyond already gridlocked debates, if only to come back to them with a fresh set of claims. An example of such debates could be the degree to which developing states ought to show their good faith by reigning in GHG emissions in the immediate rather than distant future. Put more simply, I want to conceptualize the violence of climate change in an a way that accords with Andrew Dilts's formulation of the root-concern behind a recent symposium on Johan Galtung, which holds that "if we, as political scientists, limit ourselves to an analytic of violence that points solely to agents and intentions, we are sure to miss the pervasive forms of violence that are "built into"" myriad levels of common experience.[68] This concern involves coming up with ways of understanding violence beyond the "liability-based models of agency and force" prominent in juridical and ordinary thinking and compatible with the bulk of the political theoretic ways of thinking about violence rehearsed above.[69] Turning to the following thinkers helps us in this regard.

One way of thinking in this direction is to think back to Galtung's theory of *structural* violence: a violence that arises out of collectively reified (and therefore seldom questioned) everyday practices and ways of doing business, commerce, production, consumption, transportation, etc. Indeed political theorists have convincingly made the case that structural violence à la Galtung remains a valuable (if contested) starting point

[68] Andrew Dilts, "Revisiting Johan Galtung's Concept of Structural Violence," *New Political Science* 34, no. 2 (2012), 191.
[69] Ibid.

for thinking about broad, diffused, and de-centered forms of violence.[70] Per Galtung, violence occurs when human potential is diminished, and when this could have been otherwise. "Violence is that which increases the distance between the potential and the actual, and that which impedes the decrease of this distance."[71]

While I take Galtung's point, I prefer to think of the violence of climate change as that which dislocates, disrupts, or dispossesses. At any rate, *structural violence* is opposed to personal (direct, intentional) violence in which one subject acts violently against another, and is defined as violence "where there is no such actor."[72] Climate change would seem to fit this definition, insofar as no individual (nor apparently any state, corporation, or collection of shareholders) is directly responsible for, say, the increase in erosion that has rendered Kivalina uninhabitable and its people potentially dislocated. Rather, that violence depends on structural conditions and configurations organized such that individually insignificant GHG emissions combine to produce a threatening outcome.

Galtung's later work may interrupt this interpretation. In a 1992 speech, Galtung suggests that environmental violence (and there he is not discussing climate change particularly, but a wide range of depletions and pollutions committed by corporate perpetrators) is essentially a direct form of violence. Having asked his audience whether environmental violence is direct, structural, and / or cultural, he tells them that "here it is essentially direct. But the State-Capital alliance will try to transform it into structural violence, as something "global" that just happens, built in to the system, unintended and

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[70] See Johan Galtung, "Violence, Peace, and Peace Research," *Journal of Peace Research* 6, no. 3 (1969): 167-91. See also the symposium in *New Political Science* 34, no. 2 (2012), edited by Yves Winter. Thanks to David Temin for this resource.
[71] Galtung, "Violence," 168.
[72] Ibid., 170.

working with long time lags; thereby again getting capital off the hook legally speaking."[73] Galtung is here concerned not to let states or capital 'off the hook' by naturalizing, universalizing, or globalizing the environmental violence that is actually more directly attributable to perpetrators. His concern is that, by equating environmental violence with structural violence, it will be naturalized and allowed to recede into the background. I certainly share this concern, even as I do not think structural violence will necessarily appear natural, especially in light of a political project that aims to keep it visible and highlight its causes.

Likewise, when we focus more directly on the problem of climate change, and the violence of climate change, the idea that such violence is direct (as Galtung seemed to imply in 1992) becomes problematic. Here the problem is not that of a state-corporate alliance leading to the dumping of toxic waste in or around a poor community. In the case of climate change agency is dispersed more than it is, say, when a CEO decides to dump toxins into a particular river. In the case of climate change, *capital* is at fault to be sure, but it is less clear that particular *capitalists* can be seen as perpetrators, or that that language is the most useful for analyzing the problem (a concern raised by Ruth Miller, above).[74] Still, Galtung's caution is one among a few reasons that we ought not read climate change as a "structural violence" strictly speaking.

Iris Marion Young, focusing on 'structural injustice' but writing in the tradition of

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[73] Galtung, "Eco-Logic and Politico-Logic: Are They Compatible?" Lecture given at the University of Trier on 9 December 1992, http://www.uni-trier.de/fileadmin/forschung/ZES/Schriftenreihe/007.pdf, 18. Thanks to Shawn at the Galtung-Institut for bringing this lecture to my attention.

[74] Even if these can be done, agency is *also* distributed much more widely through, in Galtung's words in the speech, civil society.

structural violence[75] further clarifies the following contours of the latter:

> Structural injustice … exists when social processes put large groups of persons under systematic threat of domination or deprivation of the means to develop and exercise their capacities, at the same time that these processes enable others to dominate or to have a wide range of opportunities for developing and exercising capacities available to them. Structural injustice is a kind of moral wrong distinct from the wrongful action of an individual agent or the repressive policies of a state. Structural injustice occurs as a consequence of many individuals and institutions acting to pursue their particular goals and interests, for the most part within the limits of accepted rules and norms.[76]

I take the following elements to be important to Young's discussion of structural injustice / violence. First, large groups of people are negatively impacted, whereas other groups benefit from the policies and practices in question. Second, structural injustices are different from personal ones, in which a perpetrator directly and explicitly harms a victim. Finally, structural injustice arises when people follow most or all of the rules known to them. Climate change, and the injustices associated with it, again seems to fit with these elements of structural injustice, as large swaths of people are impacted while others benefit, the harms associated with climate change are not easily reduced to the perpetrator-victim framework, and climate change arises when the rules and (hegemonic) norms of contemporary life are followed. Again, climate change would seem to fit

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[75] This conceptual leap from violence to injustice, and therefore the textual leap from Galtung to Young, is authorized by Galtung himself: "In order not to overwork the word violence we shall sometimes refer to the condition of structural violence as *social injustice.*" Galtung, "Violence," 171. Emphasis in original.

[76] Iris Marion Young, *Responsibility for Justice* (Oxford: Oxford UP, 2011), 52.

Young's conception of structural injustice that is itself indebted to Galtung's structural violence.

Yet structural violence as a conceptual term might not be enough to capture all of the important aspects of climate change. I thus appreciate the move in *Slow Violence and the Environmentalism of the Poor*, by which Rob Nixon expresses debt to and appreciation for Galtung's older (1969) formulation of structural violence even as he wishes to expand upon it in order to get at the kinds of environmental violence that are the subject of *Slow Violence*.

So Galtung's original formulation requires tweaking in order for it to shine light on the violence of climate change as I am wont to do. As Nixon highlights, "for all the continuing pertinence of the theory of structural violence … the notion bears the impress of its genesis during the high era of structuralist thinking that tended toward a static determinism."[77] As such it does not give enough attention to a temporal dimension of violence: to the slow unfolding and often delayed disruptions and dispossessions brought about by climatic changes. Writing on environmental degradation and its human toll in the postcolony, Nixon has proposed a theory of slow violence that helps to better account for the temporally insidious kinds of violence entailed by environmental degradation than does structural violence alone. Per Nixon, slow violence is a violence that "occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all."[78] Albeit lethargically, slow violence is violence that moves, that is neither static nor deterministic.

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[77] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard UP, 2011), 10.
[78] Ibid., 3.

Recall here for contrast Galtung's statement that "structural violence is silent, it does not show – it is essentially static, it *is* the tranquil waters."[79] Nixon's claim thus leads me to suggest that the concept of structural violence allows us to focus adequately on the *spatial* elements of violence, yet inadequately on the *temporal* ones, insofar as the violence of climate change is neither 'silent' nor 'static': even those tranquil waters are comprised of circulating currents.[80] However subtly, the violence of climate change is noisy and in motion. The value-added that the concept of slow violence provides in relation to structural violence is that it works "to foreground questions of time, movement, and change, however gradual."[81] Slow violence helps us move from thinking about non-personal violences that arise out of static and spatial backgrounds to thinking about them as emerging material processes that unfold and change in time *and* across space. Less a refutation of Galtung's concept, Nixon's work torques it in order to better describe the emerging specter of environmental violence.[82]

As such, the concept of slow violence helps to conceptualize the violence of climate change, even as it shares much with the concerns of Galtung and Young to theorize political phenomena structurally rather than personally. It does so by introducing the

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[79] Galtung, "Violence," 173. Emphasis in original.
[80] Winter also directs our attention to the need for more temporal thinking in relation to Galtung's original formulation in "Violence and Visibility."
[81] Nixon, *Slow Violence*, 11.
[82] Indeed elsewhere, Galtung devotes more attention to the question of time in relation to environmental degradation and violence. In the 1992 talk mentioned above, he emphasized the role of time in precluding adequate responses to environmental problems, suggesting that "the cyclical relation between human causes (the perpetrators) and human effects (the victims) is broken because the effects can be displaced far away in social space (lower classes, castes, outgroups), in geographical space, and in *time*. More plainly, he also told his audience that "most causes and perpetrators [of ecocide] are found in Capital, and most victims and effects in Civil Society, particularly in remote niches in social and geographical space, and *time*. See Galtung, "Eco-Logic," 14 and 16, respectively, Emphases added.

problem of temporality into the conceptualization of (otherwise largely but not completely spatial) structural violence. Moving forward, I use the term 'climate violence' to gather existing theories of structural and slow violence together, and to allow for conceptual and grammatical precision in the remainder of this dissertation.

IV. Conclusion: Climate Change as Indirect Violence

> I wanted to disseminate a flexible, mobile catch phrase–slow violence–that other activists and scholars could pick up and use adaptively.[83]

> Everything now hinges on making a definition of 'violence' … however, it is not so important to arrive at anything like *the* definition, or the typology – for there are obviously many types of violence. More important is to indicate theoretically significant dimensions of violence that can lead thinking, research and, potentially, action, towards the most important problems.[84]

Moving away from canonical approaches to violence, and positioned orthogonally to the theorization of climate change as *leading to* increases in violences which would have occurred albeit to a lesser degree, I maintain that climate violence should be thought of as unintended and indirect. As such, climate violence can still be seen as unnatural and as having particular causes, even as those who are ultimately found to be the worst offenders do not need to have intentionally committed any acts in order to be deemed responsible for those acts. When coastlines erode, when water sources deplete, when ocean acidification pushes out sources of sustenance, and so on, violence is very much present insofar as human and other communities suffer the consequences of dislocation, disruption, and / or dispossession. Yet intention and agency are difficult to locate here, and it is perhaps fruitless to do so in some cases of extreme complexity (even if it is

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[83] Nixon, "*Slow Violence* Revisited: A Response to Mary Louise Pratt and Stephanie LeManager," *Interventions: International Journal of Postcolonial Studies* 14, no. 2 (2012), 305.
[84] Galtung, "Violence," 168.

politically desirable to locate intention, agency, blame, etc.). I gather the work of Galtung, Young, and Nixon into my conception of climate violence insofar as each of these thinkers help us edge away from the view that climate change (only) augments other direct and intentional violences, as well as from the view of violence as (only) a tool that the state uses to achieve its aims, a means to revolt, or physical pain applied to individuals. Climate violence contrasts with these received ways of thinking about violence: Galtung, to drive home the point, wrote that across many uses of violence, "violence is not an end, but rather a means to overcome obstacles impeding the realization of a future order, the millennium, the communist society, etc; these future orders do not seem to contain violence."[85] Whether or not a certain ideology endorses violence is not of concern here. Rather, note that Galtung implies that violence (of the direct sort at least) is either a means or an end. In describing the violence of climate change as unintended I mean at least two things.

First, climate change is synonymous with the violence it produces: it does not *lead* to violence, it *is* violence. Next, this violence is neither a means nor an end, as each of these categories would imply intention and avowal (or disavowal), qualities that are by and large lacking or only weakly present in relation to climate change. Lacking intention and existing as neither means nor end, the particular violence of climate change presents a need to rethink the ethics and politics that surround it: if we cannot simply isolate and punish perpetrators, how can responsibility and political responses to climate change be organized? At stake here is not merely a question of whether the violence of climate change is the *right* or *wrong* thing to do. Instead, when thinking about the violence of

[85] Galtung, "Violence," 186fn2.

climate change we must think about what *happens* regardless of individual beliefs and intentions. As Winter suggests, "whether a person is killed by a shotgun or by the deprivation of the basic necessities of life is irrelevant. Individual agency and legal responsibility are unsatisfactory criteria for determining the incidence of violence."[86] Whether a person is starved by the outright refusal of food or by the slow degradation of land's ability to provide is irrelevant. Individual agency and legal responsibility are unsatisfactory criteria for determining whether climate change is a violent matter.

Yet this expansive view of climatic violence, paired with the broad definition of violence from which I started above, might lead us to a series of epistemological questions: how do we know when violence is present at all? if climate change, unintended and unintentional, is a violence, then who isn't impacted? what, in such a world, *isn't* violence? Furthermore, critics might ask, why shouldn't we simply assume (from now on, at least) that any actions that contribute to climate change will be *known* as violent actions in a direct and intentional sense? These are, to be sure, important questions and potential ways of shifting our knowledge and sense of blame in order to make climate change fit with the kinds of violence discussed above. Yet I suggest that, rather than epistemological questions to be settled through philosophical reflection, these are actually *political* questions. In other words, we can know that violence is present, that climate change is violence, and who exactly is impacted through that violence when people bring those concerns into politics – when people act to *create* these political problems. At the level of political theory, this dissertation is partially an attempt to name this process.

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[86] Winter, "Violence and Visibility," 197.

Likewise, to the question of whether climate change might be reconceptualized as a direct form of violence, I answer that this is possible (though not likely), even as I insist that that too would be a political move. Discussing the difference between direct and indirect forms of violence, of course, raises the *political* question of power: the power to decide whether violence is present, direct, indirect, and so on. As in Shklar's extended and illuminating discussion of the difference between injustice and misfortune, the question of the presence of violence and whether such violence is direct or indirect is in large part "a question of who has the power to define the meaning of actions."[87] Clearly a great number of entities currently have this power, not least among them states, corporations, the United Nations, mass media, and so on. In terms of ideology (as I will argue in the next chapter), neoliberalism has a firm grasp on much of this power. Yet (as I will argue in Chapter 5) individuals and groups acting in concert might also take some of this power and thus render it more democratic. So while these questions of defining violence and of who gets to define violence are of great importance, we can still say with Galtung that we do not need to settle on *one* definition, *one* answer to any of these questions. Rather, we ought keep them in mind whenever we confront particular political claims about what is and is not violence, and what violence is intended or not.

For just as there is no single cause of climate change, there is no single answer as to whether or not its violence is intentional. Sometimes we might be able to say that, knowing what we know now, we ought read it as such. Yet for much of the history of carbon emissions, and for many people operating today, this likely does not apply. The unintended violence of climate change, rather, arises from a great many subjects with

[87] Judith Shklar, *The Faces of Injustice* (New Haven, CT: Yale UP, 1990), 7.

fractured and minuscule amounts of agency, each intending by and large to follow the rules and norms of contemporary industrial and postindustrial society. Gathered into my concept of climate violence, then, are the concepts of structural violence, structural injustice, *and* slow violence. Insofar as climate change is a spatial and temporal problem,[88] slowly and unevenly unfolding over great expanses of time and space, we need a way of thinking and talking about it that recognizes its complexity. Driven by dairy farms in California as much as coal plants in China, individual light bulb preferences as well as corporate quests to open Alaskan wildlife refuges to drilling, and so on, climate change is a violence the sources of which are perpetually rendered abstract and which perpetually shift.

While the theorists of violence who opened this chapter differ on many things, they agree on at least one. Violence, from Machiavelli to Rawls, is of political concern, even as it raises ethical considerations. In arguing that we ought conceptualize climate change as a problem of indirect violence that is at once structural and slow, I have meant to bring climate change into the realm of the everyday, interpreting it as an explicitly ethical and political problem, one that exceeds its usual place as a problem for technology or, at best, of elite politics (think here of the United Nations Framework Convention on Climate Change and the other relevant constellation of NGOs, IGOs, etc. that contribute to projects *like* that of creating a carbon-offset project in Mount Elgon National Park, Uganda). In my next chapter, I turn more directly to the dominant climate imaginary before returning in subsequent chapters to the ways in which our thinking around

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[88] See Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford UP, 2011 for an extensive discussion of the implication of climate change as at once a spatial, temporal, and ethical problem.

responsibility and democracy might shift once climatic change is recognized as indirect violence.

Chapter 3: The Dominant Climate Imaginary

I. Introduction

> Never forget: for neoliberals, the preordained answer to any problem, economic or otherwise, is more markets.[1]

> The groundbreaking report from Sir Nicholas Stern, released in October 2006, shows clearly that it [climate change] is a serious economic threat, not just a scientific concern. In his comprehensive report for the U.K. Government, the former chief economist at the World Bank describes climate change as "the greatest market failure the world has seen."[2]

> The final neoliberal fallback is geoengineering, which derives from the core neoliberal doctrine that entrepreneurs, unleashed to exploit acts of creative destruction, will eventually innovate market solutions to address dire economic problems. This is the whiz-bang futuristic science fiction side of neoliberalism, which appeals to male adolescents and Silicon Valley entrepreneurs almost as much as do the novels of Ayn Rand.[3]

> It is possible to cool the planet by injecting reflective particles of sulfuric acid into the upper atmosphere where they would scatter a tiny fraction of incoming sunlight back to space, creating a thin sunshade for the ground beneath. To say that it's "possible" understates the case: it is cheap and technically easy. The specialized aircraft and dispersal systems required to get started could be deployed in a few years for the price of a Hollywood blockbuster.[4]

In my last chapter I suggested that climate change should be conceptualized as a problem of indirect violence because it disrupts people's lives, dislocates, and dispossesses them, all in the absence of clearly defined agents. In the two chapters following this one, I turn to the implications of this re-conceptualization for thinking about responsibility and the complications that climate violence presents to democratic

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[1] Philip Mirowski, *Never Let a Serious Crisis Go to Waste: How Neoliberalism Survived the Financial Meltdown* (London: Verso, 2013), 332. Thanks to Bryan Nakayama for reminders – early and often – that I ought turn to Mirowski.
[2] Sonia Labatt and Rodney White, *Carbon Finance: The Financial Implications of Climate Change* (Hoboken, NJ: John Wiley & Sons, 2007), iii.
[3] Mirowski, *Crisis*, 340.
[4] David Keith, *A Case for Climate Engineering* (Cambridge, MA: MIT Press, 2013), ix.

theory and politics, respectively. This chapter, literally in this dissertation and metaphorically in climate politics, comes between Chapter 2 and Chapters 4 and 5. It deals with factors countervailing to or prohibitive of the ethical and political possibilities that I discuss in the next two chapters. It does so by critiquing the ideologies and practices that arise out of the dominant imaginary, and pointing to some of the most dramatic pitfalls of starting from such practices.

I borrow the chapter's starting point from Philip Mirowski, who argues that neoliberalism prescribes markets first and foremost, and technology if and when markets cannot address problems sufficiently. The forces discussed in this chapter all reflect and re-entrench a dominant image of climate change (discussed in Chapter 1) that runs counter to my conceptualization of climate violence. Such forces impede the ethical and political arguments that comprise the next chapters.

Yet I also push back on Mirowski's claim that technology – geoengineering in the case of climate change – is simply part and parcel of the 'neoliberal playbook.' I take his point that both neoliberalism and techno-optimism rely on a narrative of 'unleashed entrepreneurs,' who rush in to remedy what politics 'cannot,' even as I insist that important differences between the two persist. Lumping the two together under a singular heading misses the fact that there are two co-operational logics at play, and thus limits the usefulness of the critique. As such, I argue that Mirowski's commentary on climate change actually points to two more or less distinct components of the dominant climate imaginary: neoliberalism *and* managerialism. Where neoliberalism substitutes politics for markets, managerialism replaces politics with expertise and technical precision.

My main goal in this chapter is to elucidate the dominant climate imaginary by clarifying these elements of it and pointing to their material and ideological stakes. Along the way I explore concrete examples of the kinds of depoliticized responses these logics generate, and show why and how they work to undermine a democratic climate politics. I turn to two controversial cases in order to dramatize the stakes and also to show how extreme some of the mainstream, business as usual responses to climate change can look when viewed with fresh eyes. Without rooting our proposals for climate responses in a thorough understanding of and encounter with the violence of climate change – as these approaches certainly do not – I argue that we are prone to embrace solutions that appeal to dominant ideologies without adequately interrogating the real human effects that they have (or, perhaps, lack). Returning to a passage highlighted in Chapter 1, such approaches ask us "to change radically, but within the contours of the existing state of the situation … so that nothing really has to change."[5] This chapter tries to make this case while interrogating such effects.

In Section two, I offer initial definitions and critiques of neoliberalism and managerialism. The third and fourth sections shift from initial definitions to concrete examples of neoliberal and managerial approaches to climate: the creation of 'carbon finance' markets and the reliance on expert technology through 'geoengineering.' I conclude by arguing that when approaches start from the dominant climate imaginary, they risk leaving the social and political problems of climate change unaddressed, aiming instead to mitigate rather than transform the root causes of climate violence. Closer

[5] Erik Swyngedouw, "Apocalypse Forever?" Post-Political Populism and the Spectre of Climate Change," *Theory, Culture & Society* 27, no. 2-3 (2010): 219.

attention to managerialism, undertheorized in many studies that critique mainstream climate solutions along neoliberal lines alone, helps explain in greater detail why we should not expect the dominant climate imaginary to open up new spaces for democratic understandings and engagements, or even to maintain existing ones.

II. Neoliberalism and Managerialism: An Ideology Critique

As I discuss in my first chapter, neoliberalism is an oft-noted component of the dominant climate imaginary. Indeed, it simultaneously animates and reinforces dominant responses to climate change exemplified by the UNFCCC. In this sense neoliberalism steers the collective global response. Yet existing critical approaches to climate change are too quick to consolidate multiple logics under the umbrella of neoliberalism. Expanding on Mirowski, I want to point to two distinct logics at play: one neoliberal and one managerial.[6]

To do so, I make use of a relatively straightforward if not simplistic Marxian method of ideology critique as elaborated by Bertell Ollman and Richard Lichtman in the latter's *Essays in Critical Social Theory*. The continuing power of such a critique is that it helps us explain why logics that ostensibly aim at making some fundamental change so often end up reproducing more of the same. Take the fundamental example of a laborer who works so that they can leave a life of work behind, yet ends up working their whole life. What has happened? According to the liberal-bourgeois view, perhaps the individual failed to work hard enough, or perhaps they were simply unlucky. To a neoliberal, it would appear that they were not entrepreneurial enough, failed to take enough risk, or

[6] Special thanks to Bud Duvall for encouraging me to parse out the differences between neoliberalism and managerialism in mainstream climate politics rather than allowing them to remain collapsed.

declined to tend closely enough to the portfolio that had come to stand in for their life.[7] Perhaps. Yet viewed through the lens of ideology critique, such an outcome can be understood as a structural tendency rather than an individual accident.

Consider a brief discussion of this process from Bertell Ollman, who notes that events "give rise to and require a set of beliefs and a way of thinking that make the production of commodities, the accumulation of capital, and the sale of labor power both possible and necessary." "For example," Ollman continues, "people cannot give up what they produce unless they consider that its relation to them is contingent, that it is not an essential part of their identity. However, seeing their product acquire forms independent of them and taking on roles over which they have no control reproduces in them just this belief."[8] Where liberal-bourgeois ideology presents the making and then selling of goods as natural and, crucially, promises that doing so well will change one's life for the better, a critique of this ideology uncovers a different story. In the latter story, people only make and sell because they have internalized the story told by capitalism. In doing so they have lost something essential, watched it grow independent of them, and in turn internalized a sense of powerlessness.

While the objects of analysis are seemingly quite different from the (overly simplified and stylized) example of an individual laborer, similar critiques can be made of neoliberal and managerial responses to climate change. In what follows I walk through these critiques of ideology before turning to the processes through which we learn to be

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[7] Ivan Ascher, *Portfolio Society: On the Capitalist Mode of Prediction* (Brooklyn, NY: Zone Books, 2016).
[8] Bertell Ollman, preface to *Essays in Critical Social Theory*, by Richard Lichtman (New York: Peter Lang Publishing, 1993), xiii-xiv.

powerless in the face of climate change. If, with Marx via Lichtman, we insist that "consciousness is not autonomous and that it bears the imprint, or "reflects," the material conditions of its existence,"[9] what should we expect of collective political thinking about climate change in the context of neoliberalism and managerialism?

Neoliberalism

Neoliberal responses to climate change, as with neoliberal projects generally, tend to reify and naturalize a set of dispositions toward markets, the state, and individuals. The neoliberal framework has seen no shortage of coverage in contemporary political and social theory. Here I briefly summarize this work in order to show how existing critiques apply to and are illuminated by the dominant response to anthropogenic climate change.

First and most basically, neoliberal responses rely on market forces to understand what would otherwise be political and social problems. Indeed, this is the kernel of neoliberalism that holds true across scholarly analysis of neoliberalism[10] and political practice.

Accordingly, market forces provide neoliberals with what they claim to be the best available information, the closest approximation of 'truth.' Per Brown, drawing on Michel Foucault, "the market becomes *the*, rather than *a* site of veridiction *and* becomes

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[9] Richard Lichtman, "Marx's Theory of Ideology," in *Essays in Critical Social Theory* (New York: Peter Lang Publishing, 1993), 2

[10] See Wendy Brown, "Neo-liberalism and the End of Liberal Democracy," *Theory & Event* 7, no. 1 (2003); "American Nightmare: Neoliberalism, Neoconservatism, and De-Democratization," *Political Theory* 34, no. 6 (2006): 690-714; *Undoing the Demos: Neoliberalism's Stealth Revolution* (New York: Zone Books, 2015); Caitlin Janzen et al, eds., *Unraveling Encounters: Ethics, Knowledge, and Resistance under Neoliberalism* (Waterloo, ONT: Wilfrid Laurier UP, 2015); Susan Braedley and Meg Luxton, *Neoliberalism and Everyday Life* (Montreal: McGill-Queen's UP, 2010); Craig Calhoun and Georgi Derluguian, *The Deepening Crisis: Governance Challenges after Neoliberalism* (New York: NYU Press, 2011), for just a few examples.

so for every arena and type of human activity."[11] This mirrors Mirowski's more general claim that neoliberalism credits itself (though not necessarily its individual adherents) with possessing the truest available information at any given time: the market is the "Ultimate Cyborg … in that it is literally taken to be smarter than any human being, and further, to convey just the right information to those who need it in real time."[12] Nicolas Stern, author of the influential *Stern Review on the Economics of Climate Change,* prepared for the Government of the United Kingdom, raised this possibility when he wrote about the need to construct "possible states of the world that might result from climate change" and held that "the basis of such probabilities should be up-to-date knowledge from science and economics" because otherwise "many of the 'true' uncertainties around climate-change policy cannot themselves be observed and quantified."[13]

More recently, Michael P. Vandenbergh et al., in light of sustained skepticism of government-funded scientific studies, have deemphasized Stern's scientific element in favor of knowledge derived from markets. As such, they propose a private prediction market "to address the disconnect between climate scientists and doubters," by performing three functions: "(1) aggregate climate-science information accurately, (2) provide a credible source of that information for doubters, and (3) communicate that

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[11] Wendy Brown, *Undoing the Demos: Neoliberalism's Stealth Revolution* (New York: Zone Books, 2015), 67.
[12] Ibid., 334.
[13] Nicholas Stern, *Stern Review: The Economics of Climate Change*, 33. It remains unclear why, to Stern, 'science and economics' are able to ascertain 'true uncertainties' around climate change policy. It also remains unclear why we should not expect other methods to do the same.

information so enough doubters to make the effort worth the cost."[14] Such a market, they aver, "would have the merit of serving simultaneously as a source of credible information about climate science and also as a tool for regulating emissions."[15] In matters of climate as in matters more generally, markets are put forth as *the* mechanism through which even those who are skeptical of expert knowledge or prone to conspiracy theory can know about the world.

Second, neoliberal responses require a state strong enough to create and underwrite such markets while denouncing states strong enough to do much else. As is already apparent in the above proposals for the creation of new markets, neoliberalism leaves behind the classical-liberal or contemporary libertarian idea that markets emerge naturally and can exist separately from the artifice of states. Mirowski, in light of the changing climate, highlights these two elements by telling us that neoliberalism believes "humans can never be trusted to know whether the biosphere is in crisis or not, because both nature and society are dauntingly complex and evolving; therefore, the neoliberal solution is to enlist the strong state to allow the market to find its own way to the ultimate solution."[16] From a neoliberal perspective, such a state helps foster markets that deliver information to stakeholders. A critique of this ideological article of faith reveals the more material side of this "strong state" to consist of violence and policing, as is evident in the case of Mt. Elgon I discussed in Chapter 2.[17]

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[14] Michael P. Vandenbergh, Kaitlin Toner Raimi, and Jonathan M. Gilligan, "Energy and Climate Change: A Climate Prediction Market," *UCLA Law Review* 61 (2014): 1991.
[15] Ibid., 1993.
[16] Mirowski, *Serious Crisis*, 336.
[17] Daniel Aldana Cohen describes the dangers of this strong state bluntly: "The actually realistic danger zone," he writes, anticipating what he deems a likely future, "is a combination of

While strong enough to enforce markets, the neoliberal state gives up on its ability or desire to provide much by way of (other) public goods: it gives up on the project of beneficial political rule in favor of libertarian, negative freedom. This in turn produces a vacuum that, as I discuss in the next section, invites managerial rather than democratic projects.[18] Because the public good that states and government might provide are held at bay by the libertarian elements of neoliberalism that do persist, managerial politics has space to unfold. And in part by witnessing and internalizing various forms of managerial politics we learn to manage ourselves in turn.

Indeed one of Brown's staunchest points is relevant here: that whether at the level of a state or an individual, neoliberal reason demands that a given 'firm' conducts itself in much the same way. "As both individual and state become projects of management, rather than rule … a range of concerns become subsumed to the project of capital enhancement, recede altogether, or are radically transformed as they are "economized.""[19] When the state or the individual becomes a project of management rather than rule it trades the organizing principle of the public good for one of "competitive positioning and stock or credit rating."[20] In other words, it starts to look and behave like any other private firm, as "the conduct of government and the conduct of firms are now fundamentally identical; both are in the business of justice and

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hardening inequalities of class, race, and gender – in short, eco-apartheid. Those brutal inequalities, and the bullets that maintain them – not molecules of methane – are what kill people." Cohen, "New York Mag's Climate Disaster Porn Gets it Painfully Wrong," *Jacobin*, July 10, 2017: https://www. jacobinmag.com/2017/07/climate-change-new-york-magazine-response. Cohen's point is important, even as I see nothing wrong with the suggestion that methane *and* bullets are threats on the horizon.

[18] Or, at least, that has primarily been filled by managerial rather than democratic projects.

[19] Brown, *Undoing*, 22.

[20] Ibid., 27.

sustainability, but never as ends in themselves."[21] Coming back to the individual who witnesses and learns to value such processes, they too start to act like the private firm in the name of self-betterment or self-sufficiency. In turn, the individual helps undermine public institutions that might otherwise provide the conditions for self-sufficiency, pointing us to a third target of neoliberal reification.

Third, neoliberalism contains a tendency to break down the social worlds it inhabits, figuratively and literally, and to reconfigure them as mere collections of individuals. Neoliberal responses to environmental problems thus produce subjects/citizens as primarily individual and individuated, autonomous individuals. Brown, in turning to Michel Foucault's lectures, has helped us to think though ways in which the subject of neoliberalism becomes an individual, abstract entity: *homo oeconomicus.* Here, the individual loses much of their richness, and sees all things according to the logic and in the mold of markets: "the point is that neoliberal rationality disseminates the *model of the market* to all domains and activities–even where money is not at issue–and configures human beings exhaustively as market actors."[22] Foucault discusses this by introducing the idea of "human capital" that moves *homo oeconomicus* away from the "partner of exchange" as conceived by classical liberalism and toward a new nature as "an entrepreneur, an entrepreneur of himself, being for himself his own capital, being for himself is own producer, being for himself the source of [his] earnings."[23] In other words, Foucault and Brown insist, neoliberal ideology offers self-sufficiency. Upon closer

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[21] Ibid.
[22] Brown, *Undoing the Demos*, 31.
[23] Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978-1979*, ed. Michel Senellart (New York: Palgrave Macmillan, 2008), 225-6.

inspection, such self-sufficiency turns out to be little more than increasingly intensified isolation from even the thinly relational "partner of exchange" envisioned by Adam Smith and company.

To recapitulate: neoliberalism reduces complex, historically rich situations to straightforwardly economic ones capable of being addressed through market forces allied with a particular kind of state and transacted by individuals. The problem, per Erik Bryld, is that in this neoliberal vision "little attention is paid to non-economic factors, and the political aspects are overlooked. Thus, the complex political, social, and cultural landscape in which the state operates is grossly over-simplified."[24] In offering economic solutions to complex social and political problems, the neoliberal playbook gives little guidance to those who would seek to engage the world in non-economic spheres and according to non-economic logics.

Managerialism

Mirowski connects technologies like geoengineering to neoliberalism by suggesting that when markets are not enough, the neoliberal playbook says to embrace new technologies to solve problems. Yet Mirowski does not make it clear *why* the turn to technology is neoliberal, exactly. While I accept that the two logics are broadly connected, insofar as they often operate alongside one another in existing (climate) politics and policy, I am not convinced they are equivalent. Here I suggest that we can see in the dominant imaginary's turn to technology to solve climate change the presence not only of neoliberal logics, but managerial ones as well. Where neoliberal logics

[24] Erik Bryld, "The Technocratic Discourse: Technical Means to Political Problems," *Development in Practice* 10, no. 5 (2000): 703.

replace politics in the ways outlined above, managerial approaches rely on the use of top-down technologies and techniques to solve particular, narrowly construed problems and to keep relevant organizations running. Insofar as Mirowski declines to investigate this second logic, he omits the grounds needed for fully critiquing the ideology of the dominant imaginary.

A turn to a few textbook definitions of management is helpful for getting the point across. According to Richard Mettinger, management "is a body of knowledge, skills and expertise that must be applied in ways demanded by the particular organization in which the individual manager is working; and in ways demanded also by the particular environment in which activities are conducted."[25] To John R. Schermerhorn, Jr., "a manager is someone in an organization who supports and is responsible for the work performance of one or more other persons" and management is "the process of planning, organizing, leading, and controlling the use of resources to accomplish performance goals."[26] Finally, Martin Parker gives three definitions: 1) a "group of executives directing an industrial undertaking," 2) a "process or act of managing; skill in contriving, handling *etc*., and 3) "the academic discipline concerned with managing and administration; the part of an educational institution concerned with the same."[27]

A few qualities cut across these definitions that supplement our understanding of dominant climate politics and its ideological effects: a reliance on expert knowledge and

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[25] Richard Pettinger, *Management: A Concise Introduction* (New York: Palgrave Macmillan, 2012), 3.
[26] John R. Schermerhorn, Jr., *Core Concepts of Management* (Hoboken, NJ: John Wiley & Sons, Inc., 2004), 5-6.
[27] Martin Parker, *Against Management: Organization in the Age of Management* (Malden, MA: Blackwell Publishers Inc., 2002), 6-8.

skills, a sense that important decisions are made from the top down, and a tendency toward technological and indeed technocratic solutions. In Sheldon Wolin's words, and in this case, "the political has been managerialized … its values shaped by the pressures of a competitive economy that persistently push the limits of legality and ethical norms."[28] At times such managerialism can be outright dangerous: consider the implications of the following passage in the context of a firm or international institution tasked with managing climate change with ever more sophisticated and yet unpredictable forms of technology: "more than one CEO has ruined his firm while "managing" to emerge unscathed and richer for the experience."[29] Where Mirowski maintains that neoliberals call for technocratic solutions if and when markets cannot solve problems, I suggest instead that this kind of managerial and top-down politics fills the political void or power vacuum left by neoliberalism, placing an expert-driven techno-centric politics where a more democratic and participatory political might have been.

What is the ideological impact of swapping the political for well-managed technology? Taken as a group, political theorists have long been ambivalent with regard to technology in general. In one light, technology and the promises and perils thereof have been discussed since, at least, Aristotle conceived of both *dead* and *living* tools,[30] and made epistemological distinctions between theoretical, technical, and practical ways

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[28] Sheldon Wolin, *Democracy Incorporated: Managed Democracy and the Specter of Inverted Totalitarianism* (Princeton: Princeton UP, 2008), 135.
[29] Ibid., 145.
[30] "Instruments are partly inanimate and partly animate: the steersman of a ship, for instance, has an inanimate instrument in the rudder, and an animate instrument in the look-out man (for in the arts a subordinate is of the nature of an instrument) … the slave is an animate article of property, and subordinates, or servants, in general may be described as instruments which are prior to other instruments," in Aristotle, *Politics*, trans. Ernest Barker (Oxford: Oxford UP, 1995), 13.

of knowing and doing amidst which such living and dead technologies are situated (epistēmē, technē, and phronēsis).[31] Thinkers from Karl Marx through Martin Heidegger to Hans Jonas, from Sheldon Wolin to Langdon Winner, and from Francis Bacon to the Frankfurt School have likewise embraced or disputed Aristotle's parsing of technology, centering it even if occasionally denying it and ensuring that political theory never wanders too far from Aristotelian questions of technology.

Yet in a different light, something about studying the political implications of technology did not reach the center of political theory's concerns until relatively late. As recently as 1986, a political theorist could still write that "the basic task for a philosophy of technology is to examine critically the nature and significance of artificial aids to human activity … yet if one turns to the writings of twentieth-century philosophers, one finds astonishingly little attention given to questions of that kind."[32] Technology (as Aristotle would affirm) is a practical matter, an outcome at the end of a line of political and practical questions rather than at the beginning. Yet, and as a general rule that certainly comes with exceptions, political theory has tended to focus more on the *idea* of technology, rather than on particular technolog*ies* themselves. Only in the last couple of decades, in the time since Winner wrote the above words, has a philosophy of technology

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[31] Where, roughly, epistēmē is 'scientific knowledge' of things unchanging: "it is eternal; for things that are of necessity in the unqualified sense are all eternal;" technē pertains to making things: "a state concerned with making;" and phronēsis is 'practical wisdom' that enables political deliberation: "it is a true and reasoned state of capacity to act with regard to the things that are good or bad for man … it is for this reason that we think Pericles and men like him have practical wisdom, namely, because they can see what is good for themselves and what is good for men in general." Aristotle, *The Nicomachean Ethics*, trans. David Ross (Oxford: Oxford UP, 2009), 104-6.

[32] Langdon Winner, *The Whale and the Reactor: A Search for Limits in an Age of High Technology* (Chicago: University of Chicago Press, 1986), 4.

solidified across the related fields of science and technology studies, object oriented ontology, new materialisms, posthumanism, and so on.

Here I want to depart from these somewhat abstract critiques and appreciations of technology, instead critiquing the managerial *use* of technology.[33] I want to rein them in a little, by bringing them closer to the ground. As such, I offer here a critique of technology the goal of which is to interrogate the ideological effects of *geoengineering*, a very practical and increasingly pressing managerial application of technology, all in the context of global climate change politics. Specifically, I want to suggest that a reliance on the managerial use of technology (like a reliance on a neoliberal use of markets) enables and perhaps encourages a turning-away from concern and, ultimately, an abdication of political responsibility.

Writing long before his later warnings about managerial politics, Sheldon Wolin (and Jack Schaar) sounded a warning about technological society that I would like to pick up and extend to contemporary managerial responses to climate change. Writing through the struggles that took place at UC Berkeley and elsewhere in the late 1960s, Wolin and Schaar warned that a technological society (such as that of the 1960s and, more so, that of today), "is always trying to destroy … its past – a past in which work, self-denial,

[33] My critique is thus inspired by and dovetails with the Marxian / Marcusian view that technology, if freed from capitalist logics of profit and if explored and implemented through human rationality rather than market rationality, might indeed be an emancipatory force. Yet I am not as optimistic as Marcuse was about such prospects generally, and as will become clear, I see no evidence that geoengineering specifically might attain autonomy from managerial rationality any time soon. As such I do not pursue the Marxian / Marcusian view here. For one of its biggest proponents, see Andrew Feenberg's work cited throughout.

simplicity, and physical strength were celebrated."[34] Just as technological society tries to destroy its past, managerial technologies like geoengineering enable us to 'overcome' past wrongs by 'knowing' they will be fixed or mitigated moving forward. This, to be sure, does not comprise an exclusively technological danger, but one that is also ideological: it lets those who contributed most to the problem off the hook. If in managing the global warming problem technologically we forget the uneven levels of harm and benefit – of violence – that preceded such a solution, we fail to heed the warning that Wolin, Schaar, and others sought to provide. Even if the past of 'work, self-denial, simplicity, and physical strength' never was, and now reads as misguided or even dangerous nostalgia, the basic point that the technological society risks sliding into collective amnesia concerning its own wrongs rings true.

As suggested in my introduction, any adequate political response to climate change (outside of a quietist acceptance of present disasters those and to come) must involve some degree of technological innovation or implementation: what we might call techno-realism rather than techno-optimism. If, for example, we are to end the fossil fuel era while maintaining or increasing even modest levels of electricity use, a collective shift to solar, wind, nuclear, or other power sources, appears to be necessary.[35]

Yet accepting *some* role for new technology need not bind one to total acceptance, and

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[34] Sheldon Wolin and John Schaar, *The Berkeley Rebellion and Beyond: Essays on Politics and Education in the Technological Society* (New York: Random House, 1970), 105. I am not convinced that their simple past ever existed; if it did I do not think we should be nostalgic for it.

[35] While such debates are beyond the scope of this project, note that in the context of the US, nuclear power - and the uranium mining that nuclear power requires specifically - has a long history of impacting indigenous and other disadvantaged peoples disproportionately. I am more or less convinced (over and against ecomodernists) that nuclear *could* be left out of the equation. See Kristin Shrader-Frechette, *What Will Work? Fighting Climate Change with Renewable Energy, Not Nuclear Power* (Oxford: Oxford UP, 2011).

clearly not all technologies are created equal. If technology (and material conditions more generally) can cause not only environmental but social and political reconfigurations, any politics that potentially suggests or demands technological innovations must take a close look at the possibilities that are opened or closed (or pasts erased) when those technologies are put in place. Contrast Heidegger's assertion that "everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it," with the liberal progress narrative in which technological progress can only expand the scope and content of human freedom.[36] Where Heidegger points to a perennial *un*freedom when it comes to technology, American common sense suggests that only technology will free us (at least from the particular problem of environmental degradation).

Rather than endorse one of these two views, I instead embrace the view that "technology is not neutral but fundamentally biased toward a particular hegemony" so that "all action undertaken within its framework tends to reproduce that hegemony."[37] In other words, whatever forces implement a given technology are simultaneously going some way toward self-reproduction: networks of gas and petrol stations will tend to reinforce the hegemony of the fossil fuel era, and impress in most people a conviction that no other way is possible; decentralized community-based solar grids may foster a sense of collective concern, etc. Indeed Heidegger recognizes as much as the context of the passage above makes clear. To quote at greater length:

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[36] Martin Heidegger, "The Question Concerning Technology," in *Basic Writings*, ed. David Krell (London: HarperPerennial, 2008), 311

[37] Andrew Feenberg, *Transforming Technology: A Critical Theory Revisited* (Oxford: Oxford UP, 2002), 63.

> Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to pay homage, makes us utterly blind to the essence of technology.[38]

Heidegger thus warned then of what is now another widespread understanding of technology (one that recurs whenever gun laws are debated in the US, for example): that technologies are neutral tools that can be used this way or that, the essences and ideological implications of which lean in no one direction. Instead, we might follow the Heideggarian line of thought through to its end, and realize that "technologies are not merely aids to human activity, but also powerful forces acting to reshape that activity and its meaning."[39] Rather than trying to give a reception history of the concept of technology, or a general critique or appraisal of technology for political theoretic purposes, I discuss below how a particular technology – geoengineering – might reshape human activity and its meaning.

So far in this chapter I have tried to draw out and critique the general ideological components of two logics central to the dominant climate imaginary: neoliberalism and managerialism. In what follows I turn to particular applications of these logics that attempt to "solve" or "manage" climate change through these logics: carbon finance and geoengineering, respectively.[40]

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[38] Heidegger, "Technology," 311-12.
[39] Winner, *The Whale*, 6.
[40] For a suggestion that looking for "solutions" to climate change is a wrong turn in itself, see Thom Brooks, "How Not to Save the Planet," *Ethics, Policy & Environment* 19, no. 2: 119-135.

III. Neoliberalism and Carbon Finance

> Climate change poses several environmental problems, many of which now have a clear focus. The scientific problem: How can the high amounts of CO2 in the atmosphere causing the earth's climate to change be lowered to 350 ppm? The economic problem: How can the economy be decarbonized while addressing global economic disparities? The social problem: How can human societies change their climate-altering behaviors and adapt to changes in climate? The cultural problem: How can commodity culture be reigned in? The problem policymakers face: What regulations can be introduced to inhibit environmental degradation, promote GHG reductions, and assist the people, species, and ecosystems most vulnerable to environmental change? The political problem is less clear, however, perhaps because of its philosophical implications.[41]

Previous scholarship, with Adrian Parr's *The Wrath of Capital* front and center, has pointed to the limits and dangers of approaching climate change through the lens of neoliberalism. The neoliberal framework is limited insofar as it reduces the world to markets, the state, and *homo oeconomicus*, *and* performs a limiting function insofar as what we can think *about* climate change is limited when we think *through* neoliberalism. As Parr maintains in the quote above, climate change is a problem for, at least, the environment, science, economics, the social, culture, policymakers, and the political. I would add that it is a problem of violence and impersonal domination, and increasingly a problem of everyday life in material and psychological ways. Yet neoliberalism limits this (already necessarily incomplete) list to a question of economies and markets first and foremost. The climate problem is the externality problem *par excellence*. Nowhere is this clearer than in its projects of carbon finance.

The drive to curtail climate change by financializing carbon – by treating it as a commodity and by trading it as such, relies on the creation of markets as a means of

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[41] Adrian Parr, *The Wrath of Capital: Neoliberalism and Climate Change Politics* (New York: Columba UP, 2013), 4.

prodding *homo oeconomicus* to behave in a way that reduces the emission of GHGs either directly or indirectly (by increasing the capacity of carbon sinks to capture the CO2 released globally or by funding expanded carbon sinks).

Here we might think broadly or narrowly. Broadly, carbon finance "explores the financial implications of living in a carbon constrained world–a world in which emissions of carbon dioxide and other greenhouse gases carry a price."[42] Thus, exploring carbon finance could mean exploring all of the myriad ways in which a changing climate might impact all things financial. Addressing the content of this broad definition, however, is unrealistic for a single chapter. Somewhat more narrowly, the World Bank refers to carbon finance as "the generic name for the revenue streams generated by projects from the sale of their greenhouse gas emission reductions, or from trading in carbon permits."[43] Here, carbon finance connotes the revenue from any of the three market-based approaches to reducing greenhouse gas concentrations found in the Kyoto Protocol: Emissions Trading Schemes (ETS), Joint Implementation (JI), and the Clean Development Mechanism (CDM).[44] ETS is more commonly known as "cap-and-trade," and refers to the markets that emerge when states set quotas on allowable emissions and firms sell extra or buy additional allowances as needed. Joint implementation allows wealthy countries to invest in "another industrialized nation or a country with economies in transition" in order to satisfy their own emissions targets.[45] Similarly, CDM allows industrialized countries to invest in poorer countries as a means of satisfying their own

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[42] Labatt and White, *Carbon Finance*, 1.
[43] World Bank, *10 Years of Experience in Carbon Finance: Insights from Working with the Kyoto Protocol* (Washington, DC: World Bank, 2010), 1.
[44] Ibid.
[45] Labatt and White, *Carbon Finance*, 11.

emissions goals while transferring low-carbon technologies to the poor countries. Conceptually, we can think of carbon finance as the neoliberal response to dealing with the problem of climate change by creating markets. Here, "finance" refers to the resources (demand) used to purchase the product (supply), and the product is any project that results in the reduction of GHGs. As of 2016, Per the World Bank's Carbon Finance Unit website, 50% of the supply is rooted in Asia, 27% in Latin America.[46]

Consider how different elements of carbon finance construct the climate problem along economic lines. The theory behind ETS, for example, holds that the problem of climate change is essentially an externalities problem: that some true cost of doing business is not reflected in the actual cost thereof. The response, then, is to internalize the (currently) external cost of carbon: "since pollution problems arise because no property rights have been allocated to the problems that pollution causes, the solution is to allocate specific and limited rights to polluters."[47] Modeled on the relative success of cap-and-trade in reducing the problem of ozone depletion, the United States ensured that emissions trading was central to the Kyoto protocol. In the time since Kyoto, ETS has become one of the most common market approaches, and such markets "are now in the process of becoming … the central element of states' regulatory tools to deal with climate change."[48] Yet the ostensibly real goal of such markets – reducing GHG emissions – is uncertain, and requires a leap of faith. "The Carbon economy," Parr writes, "operates on the neoliberal presumption that the market will sufficiently discipline polluters, all the

[46] https://wbcarbonfinance.org/Router.cfm?Page=FAQ&ItemID=24677.
[47] Newell and Patterson, *Climate Capitalism: Global Warming and the Transformation of the Global Economy* (Cambridge: Cambridge UP, 2010), 96.
[48] Ibid., 99.

while boosting the profit margins of those whose business practices engage environmental issues."[49] Unfortunately, Newel and Patterson point out, "the flourishing of market-based approaches … has in fact been driven less by the neat abstractions of economics, or the pragmatic concerns of negotiators, and more (and increasingly) by the inventiveness and greed of financiers."[50] A question central to the various elements of carbon finance becomes evident here: to what extent do carbon markets primarily function to limit GHG emissions, and to what extent do they function to secure profits in a time of uncertainty, transition, and instability?

Whereas emissions trading is perhaps the most well-known form of neoliberal climate politics, the commodification of carbon itself is the theoretical development that underpins the various forms of carbon finance described above. In its own right, the commodification of carbon is striking insofar as it is perhaps the purest form of commodification more generally. Whereas commodification of other basic units (food, water, etc.) is easily if not always perfectly linked to those material things, the commodification of carbon aims essentially to commodify a *lack* of material things, or even the *negation* thereof: "unlike traditional commodities, which sometime during the course of their market exchanges must be delivered to someone in physical form, the carbon market is based on the lack of delivery of an invisible substance to no-one."[51]

What exactly is neoliberal about this? Per Brown, the financialization of carbon follows neoliberal rationality insofar as its model is that of financial/investment capital

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[49] Parr, *Wrath of Capital*, 24.
[50] Newel and Patterson, *Climate Capitalism*, 107.
[51] David Layfield, "Turning Carbon into Gold: The Financialization of International Climate Policy," *Environmental Politics* 22, no. 6 (2013): 908.

rather than "only productive or entrepreneurial capital."[52] As such, the commodification of carbon is part and parcel of a stage of neoliberal capitalism in which finance and valuation (appearance) are of greater importance than production or entrepreneurialism, or, in this case, than the 'production' of actual reductions in emissions (substance). This is because carbon finance projects "are increasingly re-framing the climate change debate in terms of the norms of the financial sector, rather than the needs and perspectives of communities at the frontlines."[53] Yet David Layfield points out that some of these issues arise not because of individual greed or some supposed neoliberal conspiracy, but because of the "length and abstraction of the value chains involved in carbon markets."[54] He continues:

> There remains a key difference between carbon-based products and other forms of security, bond or derivative contracts. The difference is that the direct connection between the carbon product and the real reduction in emissions is essential. If this connection is broken … then, environmentally, they are useless. Whatever their market price, whatever value traders attach to them as they are bought and sold, if they do not equate to real reductions in carbon emissions then they simply do not work as a means to address climate change.[55]

If for whatever reason carbon markets fail to work as a means to reduce GHGs, they

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[52] Brown, *Undoing*, 33.
[53] Oscar Reyes, Introduction to *Understanding Private Climate Finance*, ed. Oscar Reyes (Washington, DC: Institute for Policy Studies, 2012), 6.
[54] Layfield, "Turning Carbon into Gold," 909.
[55] Ibid., 910.

should not be central to international climate efforts on purely pragmatic grounds.[56] Yet even if they are working to reduce GHGs, we should still want to know what other *work* these markets are doing, insofar as "the market itself is political."[57] We want to know, for example, who benefits and who is harmed from various climate solutions, just as we want to know about the ideological effects of such markets, and how carbon markets "also entail the production of certain sorts of subjectivities."[58] If the commodification of carbon reduces GHGs, for example, yet re-produces individuals as consumers who rightly or wrongly learn they can always buy their way out of ethical and political conundrums, we still might want to highlight this as a limit of such projects and of the dominant imaginary that supports them.

Alongside such ideological critiques of neoliberal economic approaches to climate change, older moral critiques of approaching *the environment* or *nature* through classical liberal economics are relevant here. They are relevant insofar as they might be mistaken for the critique that I am making of neoliberal responses to climate change. Yet they are distinct insofar as they start from *moral* and *aesthetic* objections to bringing markets to the environment, rather than directly ideological, political and consequentialist ones.

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[56] To be sure, not all are pessimistic about the practical functioning of these markets and their ability to reduce emissions. Based on a synthetic overview of scholars and practitioners that are optimistic on this front, a 2011 report concludes that changes to emissions trading schemes:

> Suggest that emission reductions created through the 2008-2012 phase are likely to be significantly greater than those in the so-called 'learning' phase from 2005-2007. Furthermore, emissions reductions in the 2013-2020 phase will take the European economy substantially below business-as-usual, and indeed 20-30% below in emissions in 1990.

See Simon Caney and Cameron Hepburn, "Carbon Trading: Unethical, Unjust and Ineffective?," Centre for Climate Change Economics and Policy, Working Paper no. 59 (Leeds: University of Leeds, 2011), 33.

[57] Benjamin Stephan and Matthew Paterson, "The Politics of Carbon Markets: An Introduction," *Environmental Politics* 21, no. 4 (2012): 549.

[58] Ibid., 567.

Take philosopher Mark Sagoff. He argues in *Price, Principle, and the Environment*, that it is morally suspect and perhaps nonsensical to draw upon economic terms and concepts in the environmental quest. Instead, one must draw only on moral and aesthetic judgments insofar as the world and humans' place in it, to Sagoff, raise moral and aesthetic questions. In reference to John Muir's distinction between "temple destroyers, devotees of ravaging commercialism,"[59] who would destroy "nature" for gain, and those who would protect God's creation, Sagoff tells us that "I understand these categories – the conflict between commerce and Creation. What I object to is the penchant of environmentalists to invoke the vocabulary of commerce – utility, benefit, instrumental value generally – to protect the works of Creation."[60] In other words Sagoff brings an ethically admirable ecocentric approach to questions of the environment. Yet admirable does not mean complete, as such an approach downplays important questions in its own right. Where the neoliberal approach restricts answers to questions of the environment to markets, Sagoff's moral-ecocentric approach restricts answers to environmental questions to the domain of ethics.[61] I agree with Sagoff that the response to environmental problems and climate change ought not be entirely instrumental, and especially that it should not be entirely economic. Yet ideological analysis, rather than moral and aesthetic consideration alone, must lead the response to the violence of climate change if we are to address it as a political question.

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[59] John Muir, "The Hetch Hetchy Valley," *Sierra Club Bulletin* VI, no. 4 (1908): 220.
[60] Mark Sagoff, *Price, Principle, and the Environment* (Cambridge: Cambridge UP, 2004), 20.
[61] To be sure, Sagoff's use of the language of "Creation" to describe the natural world raises the question of whether his is essentially a religious worldview that rejects economic analysis as part of that which ought be 'rendered unto Caesar.' Alternately he could simply be following Muir's language of 'temple destroyers' and so on. Either way, such religious elements can be considered part and parcel of Sagoff's 'moral' approach.

I by no means wish to denounce moral, ethical, or religious experience and conviction in relation to the nonhuman world. Rather, I want to suggest that like economic approaches alone, moral approaches are not sufficient given my purposes. My twofold critique of market-based solutions to climate change is that they might simply not work (insofar as such markets are too 'distant' from actual GHG emissions), and that even if they do work in this way, they may also work ideologically to re-produce the kinds of capitalist relations out of which environmental degradation emerges to begin with and thereby allow for continued *political* damage to various peoples across the globe. Whereas philosophers like Sagoff (rightly) ask moral questions about the endeavor of leaving environmental problems to markets, I suggest that we ought also to focus on the practical question of whether markets are too indirect (or ineffective) a path for GHG reductions, and whether they therefore facilitate rather than transform the ideologies that unleash climate violence.

Some would see the disconnect between promise and practice of carbon finance – emissions reductions and increase of wealth – as accidental, or a problem of non-ideal application. Yet, keeping ideological commitments of neoliberalism in mind, it seems fair to consider an analogy between Marx's worker who, after being sold the idea that hard work means social mobility, endures a life of exploitation that much more willingly and works much more strenuously than they would have otherwise. Here we might ask whether those why buy into the idea that carbon finance might trade away the problem of climate change are being sold a similarly risky promise, one that may occasionally come true and provide success stories while aiming at another goal – capital accumulation –

more broadly and centrally. This is the central ideological danger of neoliberal climate politics.

IV. Managerialism and Geoengineering

In embracing the managerial use of technology – geoengineering especially – adherents of the dominant imaginary make possible additional ideological effects hostile to democracy. This is the case for at least two reasons: 1) the specific technologies involved in geoengineering invite centralized power and unresponsive decision making, and 2) managerialism more generally is by nature a top-down, technocratic endeavor.

In 1986, Langdon Winner surveyed a world still centrally concerned about the nuclear bomb and about to embrace the personal computer, the iPod, the smartphone, the body camera, and so on, and claimed that "what is needed is an interpretation of the ways, both obvious and subtle, in which everyday life is transformed by the mediating role of technical devices."[62] In making the claim that we ought think about the ways that technical devices change everyday life, he pinned down part of the truth. Indeed, then and now, asking how everyday life is mediated by technology is of pressing importance. Yet by limiting the analysis to technical *devices*, Winner unnecessarily narrowed the scope of his claim. By implicitly excluding non-devices, Winner bracketed analyses of much that is important about technology to environmental political theorists: the technologies that suspend GHGs in the atmosphere, the half-life of the nuclear aftermath of Fukushima, the chemical compounds that some propose ought be intentionally injected into the atmosphere in order to literally mediate between people and the sun, reflecting some of

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[62] Langdon Winner, *The Whale and the Reactor: A Search for Limits in an Age of High Technology* (Chicago: University of Chicago Press, 1986), 9.

its heat back to the great abyss, and so on. These latter forces, no less than the devices that signify technological change, require continued critical attention insofar as each either elicits or is caused by managerial political responses. How might subjectivity be altered in light of widespread geoengineering projects?

Per the British Royal Society, geoengineering is "the deliberate large-scale intervention in the Earth's climate system, in order to moderate global warming."[63] In other words, it is the attempt to *manage* the climate. Recalling the definition cited above, geoengineering does indeed comprise "a body of knowledge, skills and expertise that must be applied in ways demanded by the particular organization in which the individual manager is working; and in ways demanded also by the particular environment in which activities are conducted."[64] If climate change can be conceived as the accidental or unforeseen manipulation of the earth's delicate balance, geoengineering can be seen as the attempt to do it all over again, this time with a sense of purpose and direction. David Keith, a strong (yet cautious) proponent of geoengineering highlights this sense of purpose, calling geoengineering "the *intentional* manipulation of climate forcings with the goal of counteracting undesired climate change."[65] Most often, it is broken down into two main groups: solar radiation management (SRM) and carbon dioxide removal (CDR). CDR projects attempt to remove carbon dioxide that is already in the atmosphere. As a founder of Carbon Engineering, Keith has a personal stake in CDR: Carbon

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[63] Royal Society, *Geoengineering the Climate: Science, Governance and Uncertainty* (London: Royal Society, 2009), ix.
[64] Pettinger, Management, 3.
[65] Keith, *Climate Engineering*, 48. Emphasis added. Proponents like Keith do not fully lack an appreciation for the unintended consequences that will accompany their projects. Yet they often judge the pressing issues at hand to do be of greater importance than potential future issues, a judgment that breaks with the precautionary principle too quickly.

Engineering aims to develop "technology for direct capture of carbon dioxide from the air."[66] Cognizant of conflicts of interest, Keith purports to limit his academic work to SRM projects (in which Carbon Engineering has no stake), which aim to cool the globe by reflecting solar energy back out to space, thus precluding it from sticking around and warming the globe further.[67] Keith, one of the most active and visible proponents of geoengineering limits his analysis to SRM projects. Here I will do the same, with the additional reason that proposed methods of SRM clearly demonstrate the stakes of managerialism: they could be deployed by just a few unaccountable managers – whether individuals, corporations, states, or otherwise – and, once done, would impact broad swaths of the population in multiple ways.

It is important to note that SRM remains a largely hypothetical enterprise. Indeed, in defending the prospect Keith admits as much, presenting a choice between "the status quo–with almost no research on the subject–and commitment to a serious research program that will develop the capability to geoengineer, improve understanding of the technology's risks and benefits, and open up the research community."[68] His argument is, first and foremost, an argument for more research. While I am less optimistic about such research, I want to be careful here and state that I do not take issue with the research being done in the first place, especially if scientific research on geoengineering is taken together with and informed by ethical and critical considerations.[69]

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[66] Ibid., xix.
[67] http://carbonengineering.com/. I still wonder about conflicts of interest insofar as the successful adoption of SRM might well open the door to CDR projetcs.
[68] Ibid., 13.
[69] The foremost scholar of the ethical implications of geoengineering is perhaps Stephen Gardiner. See his "Geoengineering and Moral Schizophrenia: What Is the Question?" in *Climate*

Keith may be right to claim that there has not been much research done to date, but there have been a few notable reports and controversial experiments in recent years. The most recent IPCC report, released between 2013 and 2014, included the language of geoengineering for the first time.[70] Per *Nature*, "mention of 'geoengineering' in the report summary was brief, but it suggests that the controversial area is now firmly on the scientific agenda."[71] In 2015, the US National Academy of Sciences authored two reports on geoengineering. One of those reports explicitly covered SRM techniques. Its general conclusion was that SRM ("albedo modification") "at scales sufficient to alter climate should not be deployed at this time," but that "an albedo modification research program be developed and implemented."[72] Most recently, in July 2017, the US Global Change Research Program delivered an official report to congress that steps up the language somewhat. "While climate intervention cannot substitute for reducing greenhouse gas emissions and adapting to the changes in climate that occur," the report reads, "some types of deliberative climate intervention may someday be one of a portfolio of tools used in managing climate change." Likewise, the report highlights sources of a potential "arms race" in geoengineering, writing that the need for research "becomes all the more

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Change Geoengineering: Philosophical Perspectives, Legal Issues, and Governance Frameworks, eds. Will Burns and Andrew Strauss (Cambridge: Cambridge UP, 2013),11-38 and *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford UP, 2011, especially Chapter 10. For an argument that geoengineering research has largely excluded, but would very much benefit from, gender analysis See Holly Jean Buck, Andrea R. Gammon, and Christopher J. Preston, "Gender and Geoengineering," *Hypatia* 29, no. 3 (2014): 651-69.

[70] The next report, which will be the sixth, is currently being researched and is scheduled for release between 2021 and 2022.

[71] Daniel Cressey, "Climate Report Puts Geoengineering in the Spotlight," *Nature* (October 2, 2013): http://www.nature.com/news/climate-report-puts-geoengineering-in-the-spotlight-1.13871.

[72] National Academy of Sciences, *Climate Intervention: Reflecting Sunlight to Cool Earth* (Washington, DC: The National Academies Press, 2015), 9-10.

apparent with the recognition that other countries or the private sector may decide to conduct intervention experiments independently from the U.S. Government."[73]

Alongside such reports, a few experiments are notable. In July of 2012 American businessman Russ George experimented with a CDR technique known as ocean fertilization by releasing 100 tons of iron sulphate into the Pacific Ocean in a bid to study its effects on plankton, where "the intention is for the plankton to absorb carbon dioxide and then sink to the ocean bed."[74] George's experiment, it is worth noting, ran afoul of two UN conventions: the Convention on Biological Diversity and the London Convention on the Dumping of Wastes at Sea.[75] This experiment exemplifies some of the direct political dangers of managerial projects: that rogue states, corporations, or individuals might take matters into their own hands without broader accountability or scientific consensus, that profit rather than actual impact on climate woes might be the goal of the particular firm undertaking the projects, that climate could someday be weaponized, and that communities with little to no say may be negatively impacted, to name a few. In the wake of George's experiment and in the midst a UN meeting attended by indigenous peoples' organizations, an article in *The Guardian* highlighted such concerns:

> "If rogue geoengineer Russ George really has misled this indigenous community and dumped iron into their waters, we hope to see swift legal response to his

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[73] US, Global Change Research Program, *The National Global Change Research Plan 2012-2021: A Triennial Update* (Washington, DC, 2017), 37.
[74] Martin Lukacs, "World's Biggest Geoengineering Experiment 'Violates' UN Rules," *The Guardian* (15 October 2012): https://www.theguardian.com/environment/2012/oct/15/pacific-iron-fertilisation-geoengineering.
[75] Ibid.

> behavior and strong action taken to the heights of the Canadian and US governments," said Silvia Ribeiro of the international technology watchdog ETC Group, which first discovered the existence of the scheme. "It is now more urgent than ever that governments unequivocally ban such open-air geoengineering experiments. They are a dangerous distraction providing governments and industry with an excuse to avoid reducing fossil fuel emissions."[76]

Along with the direct impacts mentioned above, Ribeiro points to an explicitly ideological function of geoengineering; in the name of combatting climate change it may indeed legitimize the continued consumption of fossil fuels.

Despite his caveats, Keith stands out as a clear defender of a managerial endeavor on the precipice of emergence. Indeed, Keith is at the center of a second impending geoengineering experiment that has been widely discussed and reported. Having used computer modeling to conduct preliminary experiments, Keith aims to conduct a real-world experiment by 2018, when he and Frank Keutsh:

> Hope to launch a high-altitude balloon, tethered to a gondola equipped with propellers and sensors, from a site in Tucson, Arizona. After initial engineering tests, the "StratoCruiser" would spray a fine mist of materials such as sulfur dioxide, alumina, or calcium carbonate into the stratosphere. The sensors would then measure the reflectivity of the particles, the degree to which they disperse or coalesce, and they way they interact with other compounds in the atmosphere.[77]

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[76] Ibid.

[77] James Temple, "Harvard Scientists Moving Ahead on Plans for Atmospheric Geoengineering Experiments," *MIT Technology Review* (March 24, 2017): https://www.technologyreview.com/s/603974/harvard-scientists-moving-ahead-on-plans-for-atmospheric-geoengineering-experiments/.

While such research remains preliminary, Keith is at its forefront. His defense runs as follows. In a world in which a first round of climate change was unintentional and is now unavoidable, and in which global governance is not (yet?) mature enough to guide profound changes in the release of GHGs, geoengineering might step in as a reasonable policy response. Specifically, Keith is intrigued by the relative ease and low-cost of aerosol geoengineering: "the most plausible near-term method is to increase [the] amount of sulfuric acid aerosol in the stratosphere."[78] The result would be as follows:

> Aerosol particles scatter light. That's why we see clouds but can't see the water vapor out of which they condense. It turns out that the amount of light scattered for each kilogram of aerosol is greatest if the aerosols are a few tenths of a micron across, about the size of transistors in your computer's CPU and about a thousand times smaller than a raindrop … the immense leverage provided by stratospheric aerosols is evident in the ratio of carbon to sulfur. Only a few tons of sulfur in the stratosphere is needed to offset the radiative forcing of a million tons of carbon in the atmosphere … an amount sufficient to counterbalance half of the current carbon dioxide forcing, would require injecting about only one million tons of sulfur into the stratosphere each year to maintain the required amount of sulfate aerosol.[79]

Likewise, such an effort, Keith tells, would be easy. In order to inject sulfuric acid aerosol in the stratosphere, we would only need to configure and coordinate existing technologies, at least at the outset. Again, to quote at length, it would go as follows:

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[78] Keith, *Climate Engineering*, 64. Sulfuric acid is one of the chemicals his upcoming experiment will assess. It is also a chemical, along with nitric acid, associated with acid rain.
[79] Ibid., 64-7.

> Injection of sulfates might be accomplished using Gulfstream business jets retrofitted with off-the-shelf low-bypass jet engines to allow them to fly at altitudes over sixty thousand feed [sic] along with the hardware required to generate and disperse the sulfuric acid. Only one or two aircraft would be needed to start the program, and after a decade it would take about ten aircraft to lift the required 250 thousand tons each year at an annual cost of about 700 million dollars. It would then make sense to convert to purpose-built aircraft with longer wings better suited to high-altitude flights; this change would cut costs roughly in half an might allow global distribution of sulfate from two airfields … you might find this scenario intriguing or crazy, but it's hard to argue that it's technically infeasible. The necessary hardware could be ready by 2020 and even after half a century the direct cost of the program would be less than one percent of what we now spend on clean energy development.[80]

In short, while the exact planes and technologies needed for this version of geoengineering might not exist in the world, the component pieces do. Likewise, assembling them and putting them to work would be relatively easy, and relatively cheap.

Yet we might ask whether the end result, whether a failure or a smashing success, would have unforeseen consequences. Keith is not in denial about such risks, even as he devotes relatively little attention to them. "The best understood risk of sulfate geoengineering," he says, "is ozone loss."[81] More grimly: "if we begin putting a million tons of sulfur into the stratosphere each year, it will probably contribute to thousands of

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[80] Ibid., 6-7.
[81] Ibid., 68.

air pollution deaths a year."[82] Finally, "the largest concern is not the risks we know but rather a sensible fear of the unknown-unknowns that may surprise us."[83] Ultimately, however, his conclusion is clear, and front and center. "I myself," he writes," have concluded that it makes sense to move with deliberate haste towards deployment of geoengineering."[84]

Others, like Clive Hamilton and Mike Hulme have given more reason for pause. A general reason, which those who still want to focus on mitigating climate change rather than adapting to it would endorse, is that geoengineering "attacks a symptom of the disease, a warming globe, rather than its source, rising greenhouse gas emissions, and leave other symptoms, notably acidifying oceans, untouched."[85] This applies to both CDR and SRM geoengineering projects. Devotees to climate mitigation, to stopping climate change before it *really* starts to get bad, might therefore reject geoengineering outright as too shallow a solution. As noted above, this also highlights the ideological function of managerialism and geoengineering: treating the symptom opens the possibility of continuing to encourage the cause. Geoengineering and the fossil fuel era are by no means incompatible.

Others less wedded to mitigation might stick around to hear more. To such an audience, Hamilton might suggest that Keith's optimism is unfounded because it relies on relatively few studies and contrary studies exist.[86] More substantively, he might suggest

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[82] Ibid. 71.
[83] Ibid., 72.
[84] Ibid., xii.
[85] Clive Hamilton, *Earthmasters: The Dawn of the Age of Climate Engineering* (New Haven, CT: Yale UP, 2013), 52.
[86] Ibid., 62.

that additional risks inhere in the project, like the impact on rainfall: "while rainfall is expected to increase with a warming globe, reducing solar radiation enough to force temperatures back down would weaken the global hydrological cycle, meaning less precipitation."[87] Most drastically, Hamilton points to the "termination problem," which would arise if and when the supply of sulfates to the stratosphere was interrupted by "political turmoil or international conflict, or the realization that one of its side effects … is much worse than expected."[88] In the case of rapid cessation, climate scientists warn of a corresponding rapid spike in temperatures, a spike that might present a greater threat than more gradual but significant warming.[89]

So, geoengineering might not work as planned. It might have dire consequences and, depending on who one asks, there is no way to "test" it short of total deployment (even Keith admits that his impending experiments are preliminary, intended primarily to bolster computer models, and that they will not tell us much about full scale deployment). Just as carbon finance techniques might ultimately result in the creation of successful markets without limiting GHG emissions, geoengineering projects might be successfully deployed without making the world a more hospitable place, especially if they function to authorize continued use of fossil fuels.

Mike Hulme helps define a second ideological and potentially depoliticizing function of geoengineering. Hulme suggests that managerial projects like geoengineering enable us to imagine that the global climate is much more simple than it actually is: that the globe can accurately if metaphorically be described as having a "global thermostat"

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[87] Ibid., 63.
[88] Ibid., 65.
[89] Ibid., 67.

which small groups or even singular experts could control. To this end, he writes that "representing climate change through the language of global temperature is rhetorically powerful - scientifically, politically and culturally. But it is also dangerous, as it offers too easily the imagery of a thermostat and the illusion of planetary control."[90] Such an illusion, I would add, lends credibility to the unaccountable "experts" like George and Keith who might implement managerial approaches to climate change: if the world has a thermostat that some humans might somehow control, it stands to reason that we ought to entrust experts to do that work.

V. Conclusion

Taken together, the centrality of endeavors like carbon finance and geoengineering in the dominant climate imaginary reify the ideologies of neoliberalism and managerialism through which they operate, entrenching those political logics in common sense and eclipsing other potentially more democratic ones. As such, it should come as no surprise that there exists a widespread tendency to accept or endorse as fact the idea that the world on the other side of climate solutions will resemble fundamentally the way the world is – or was, before we knew what we now know about the climate. Also embedded in such an idea is the fundamentally optimistic view that new market forces and forms of technology will solve the problem.

In turn, when scholarship is framed by the dominant imaginary along with its neoliberal and managerial commitments, it implicitly disavows (or at least leaves for later) the need to reconceptualize climate change, and to re-present climate change as a

[90] Mike Hulme, *Can Science Fix Climate Change? A Case Against Climate Engineering* (Malden, MA: Polity Press, 2014), 35.

problem that invites a turn to a democratic imagination, a need to tarry with questions of responsibility, to reassess citizenship in light of climate violence, etc. The common person as figured by neoliberalism and sidelined by managerialism has little reason to want to engage politically, given the "widespread economization of heretofore noneconomic domains" such as climate, or nature more generally.[91]

In my second chapter I proposed the concept of indirect violence as a way of drawing out and encouraging democratic concern with climate change. Insofar as the indirect violence of climate change impacts large swaths of human and nonhuman beings, it should be a concern for those committed to democratic goals like equality, repair, anti-domination, and the fostering of public things available to many, if not all, people. To think democratically about the indirect violence of climate change is to think about how that violence can be slowed, stopped, and ultimately reversed (or otherwise repaired) by impacted individuals and communities. The dominant imaginary just interrogated provides few opportunities to ask such questions, and its operations should not be expected to open up such spaces.

How *can* we think about responsibility for climate violence, and how might democratic emphases shift in light of such violence? My next two chapters address these questions, respectively.

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[91] Brown, *Undoing*, 31.

Chapter 4: Situating Responsibility

I. Introduction

Whether the dominant imaginary continues to drive the collective response to climate change – or whether other logics are able to expand and/or eclipse that imaginary – the question of responsibility looms large. As I have just argued, the ideological function of neoliberal and managerial logics encourage us to shirk responsibility by mystifying the problem, making it seem as if markets or managers will address the vast and multifaceted problem of climate change. In that case, political responsibility would seem to involve showing our moral support for such approaches and demanding their swift implementation. Personal or ethical responsibility would likewise be reduced to limiting our individual carbon footprints by becoming more conscious consumers. In this chapter I turn to the question of how we can think about responsibility beyond this limited formulation, and in relation to the structural, slow unfolding of climate violence. In order to do that, I aim to accomplish a first goal of drawing out the existing discussion surrounding responsibility for climate change and a second goal, as has often been my move throughout this dissertation, of nudging it away from limited and abstract formulations toward the concrete, the everyday, and the tangible.

The standard way of approaching responsibility for climate change – the way I aim to move away from – is to ask from the outset what it might mean to take responsibility for climate change and what it might take to act in line with the responsibility one has taken: to consume responsibly; to reduce, reuse, and recycle, etc. Yet in the context of (my) everyday experience, how to go about this is by no means clear. Now that I know a

decent amount about climate change, for example, is it my responsibility to generally *consume* less in order to emit fewer GHGs? to personally boycott the *extraction, production,* or *circulation* of carbon intensive commodities? to advocate that others do the same? to lobby the government that represents me as an abstract citizen to invest in renewable energy? to lobby the university for which I teach and under the guidance of which I have written this dissertation to divest from fossil fuels, as members of the student group Fossil Free Minnesota might like me to do?[1] should I help organize students and faculty in order to collectively convince the University or the student body to foot the bill for transitioning the University of Minnesota from carbon to renewable energy, like fellow students and I did at my undergraduate institution of UC Santa Cruz? should I more simply change my proverbial light bulbs? should I decrease my luxury emissions by refusing to take unnecessary "Sunday drives?"

Even if I was sure that any one of these avenues was the 'correct' way to take on and subsequently discharge responsibility in light of climate change, I might then be faced with more questions rather than fewer. Take the first response alone: If it is my responsibility to consume less so I emit fewer GHGs (or so that I am *responsible* for the emission of fewer GHGs), how am I to go about this? do I consume fewer calories? do I use my relatively limited resources to pay more for locally sourced food and other consumer goods? do I devote my scarce free time to growing my own food in the limited outdoor space that I share with my housemates and if so, must I coordinate with them or does my responsibility to emit fewer GHGs take precedent over my responsibility to acknowledge the desires of those close to me? am I acting responsibly by declining to

[1] https://fossilfreemn.wordpress.com/.

own a car? what if I take public transportation? or Uber, with its own ethical pitfalls? what if I occasionally – or frequently – accept the generous offers of those close to me, and borrow *their* cars? what if I fly to one or two conferences a year and I reason that, since there are limits to reimbursement for conference travel, I really shouldn't purchase the carbon offsets offered by the airlines?

Similar strings of questions could be raised for any of the proposals for acting responsibly in light of climate change listed above, as well as many that I have neglected to list. And people and peoples who are positioned differently than I am would obviously, when asked, come up with their own lists of how one might take responsibility for climate change. Any one answer, then, is not going to come forward quickly, and the question of whether a singular calculated answer is productive is itself legitimate. A singular answer to individual responsibility for climate violence, like the managerial and neoliberal answers to climate change discussed in the last chapter, might problematically downplay the complexity of the situation or, worse, might end up having been misguided and ineffective. Eschewing complexity, a straightforwardly calculated responsibility might reach for "a simple view of the object, as it stands stripped of every relation, in all the nakedness and solitude of metaphysical abstraction."[2] If we settle for simple calculations of responsibility for climate change (change the light bulbs, drive less, etc.), we risk embracing metaphysical and abstract responsibilities without working through whether such enactments might address and redress the very material and relational past,

[2] Edmund Burke, quoted in Harlan Wilson, "Burke: The Nature of Politics" in Peter Cannavò and Joseph Lane Jr, *Engaging Nature: Environmentalism and the Political Theory Canon* (Cambridge, MA: MIT Press, 2014), 157. I come back to the centrality of *relation* in a political sense in the next chapter.

present, and future violences at play. In the same way that the distance in value chains risks divorcing the success of carbon-reduction markets from the reduction of actual GHGs, a simplistic approach to responsibility risks divorcing the good moral feeling one might get by acting responsibly from the question of whether such actions help produce better outcomes in the world.[3]

If there is no quick and easy answer to the question of responsibility for the climate, perhaps there is something suspect about redressing climate violence through the lens of individual responsibility in the way I have done above. Perhaps the simple "nakedness and solitude" of trying to render responsibility for climate change a private matter goes too far. And perhaps, as Chad Lavin has suggested more generally, some issues require that we think about responsibility "after liberalism."[4] Responsibility "after liberalism," or "postliberal responsibility" offers a way of suggesting that some issues are simply too obstinate to be affected by the actions of individuals and their contracts, to *homo oeconomicus* and its singular, contractual way of relating to others and to the broader world. If we listen to Lavin's claims about postliberal responsibility, it becomes necessary for individuals and groups to think beyond the liberalism of, for example, "Anglo-American criminal law, in which responsibility stems from a competent agent's

[3] Feeling good and doing right are not mutually exclusive, of course, and the former can be a good motivation for doing the latter. I turn to the role of emotion in responsible democratic action, and the prospects for seeing affective response as a *locus* for democratic projects toward the end of the next chapter. For now, I raise this distinction in order to acknowledge the possibility that some forms of responsibility might produce more good feelings than substantive change.

[4] Chad Lavin, *The Politics of Responsibility* (Urbana, IL: University of Illinois Press, 2008).

willed causality" and in which "we are responsible for what we cause."[5] Instead, postliberal responsibility means thinking in reference to the structures and social relations out of which problems emerge and against which a concrete grasp of what it would mean to be responsible might appear. Whereas (as I argue in my second chapter) the violence of climate change is indirect, frustrating familiar liberal categories such as agency and causality, one way to start to come to terms with responsibility for climate violence is to shift the register from a liberal individual one (reflected by the commonsensical individualist questions with which I begin this chapter) to a postliberal and relational one. I start this process here and draw out its conclusions in the following chapter; it is in this way that I hope to achieve this chapter's goals of both surveying past discussions of responsibility for climate violence and nudging their starting points away from abstraction and toward a concrete and hopefully more complete register.

I do this, eventually, by shifting the starting point of the conversation away from climate *responsibility* and toward a prior engagement with climate *responsiveness*. Where the first assumes that the meaning of responsibility is in some significant way clear, intelligible, or easily calculable,[6] the latter accepts that understanding and embracing one's responsibility requires a prior willingness and ability to *be* responsive. Responsive*ness*, in turn, works through a sense of openness, or curiosity even, about what it would mean to be responsible.

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[5] Ibid., vii. In conceptualizing climate violence in Chapter 2, I have already suggested that specifically liberal notions of will, intention, causality, responsibility, liability, etc. are not particularly useful when it comes to responding to climate change.

[6] I borrow the language of "calculable" responsibility from Shalini Satkunanandan, *Extraordinary Responsibility: Politics Beyond the Moral Calculus* (New York: Cambridge UP, 2015). I appreciatively discuss Satkunanandan's work in more detail below.

In order to motivate a move from responsibility to responsiveness (and then to edge back again), the second section of this chapter looks at how individual responsibility for climate change is conceptualized in the liberal register. A third section turns directly to promises of and limits to recent conversations in political theory that seek to theorize postliberal responsibility in one way or another, and points to different ways of understanding the necessarily political, *collective* nature of postliberal responsibility. Fourth, I make the case that getting to postliberal responsibility for climate violence requires tending to and fostering responsiveness, and end with a return to the question of *political* responsiveness to and responsibility for climate violence.[7]

In doing so, I aim to describe a political ethic of responsiveness between two extremes. One extreme has to do with my concerns about responsibility in the anthropocene, in which responsibility is figured as essentially burdening all humans in much the same way: we are all particulars under the universal of the anthropos and, as such, we are all responsible.[8] I call this the "universal responsibility" approach to climate ethics. At the other extreme is the "individual responsibility" approach, which offers the common, persistent, and distracting idea that responsibility is essentially personal. Common to both responses, moreover, is the idea that responsiveness need not come before responsibility. Between these unhelpful or perhaps dangerous extremes, but without constituting a straightforward synthesis of the two, rests a third view with which

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[7] The distinction between responsiveness and responsibility that runs throughout this chapter and many of the authors I turn to below – especially Jade Schiff – comes from scholars of care ethics who follow (if also challenge) Carol Gilligan, *In a Different Voice: Psychological Theory and Women's Development* (Cambridge, MA: Harvard UP, 1982).

[8] A closely related view of responsibility is in Kristin Schrader-Frechette, *Environmental Justice: Creating Equality, Reclaiming Democracy* (Oxford: Oxford UP, 2002).

I conclude. My task here is to parse out an understanding of responsibility for climate change in light of responsiveness to the fact of uneven contributions to and uneven capabilities for responding to climate change. Resting between universal and individual responsibility, I call this, simply, "situated responsibility."

Like Donna Haraway's "situated knowledge," situated responsibility affirms that we "don't want to theorize the world, much less act within it, in terms of Global Systems, but we do need an earth-wide network of connections."[9] Where 'theorizing or acting in the world in terms of Global Systems' means presuming one can calculate the world from outside of it and thus know it objectively, focusing on an 'earth-wide network of connections' means keeping in mind that one is situated *on* a globe or *in* a greenhouse and yet can never grasp it entirely. As such, rather than reach for a universal sense of responsibility in which one is responsible to everyone equally, or an individual sense in which one is responsible only for oneself – one's carbon footprint for example – situated responsibility accords with Joan Tronto's thinking about partiality and relational responsibilities. Such thinking holds that "starting from a partialist account of moral life that relies upon our concrete responsibilities provides a better guide to our global moral duties than does starting from a universalistic perspective that presumes 'wide but shallow' commitments to all others."[10] In different ways, Haraway and Tronto each push their readers to think seriously and concretely about the relations one has with others – whether such relations are readily apparent or have been previously disavowed – and

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[9] Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14, no. 3 (1988): 579-80.
[10] Joan Tronto, "Partiality Based on Relational Responsibilities: Another Approach to Global Ethics," *Ethics and Social Welfare* 6, no. 3 (2012): 314.

about one's position in the world.

Starting from similar concerns about relations, connections, and partiality, and coming back to the problem of climate change, I am here suggesting that one's responsibility at an individual level and / or as part of a collective derives from their *position(s)* vis-à-vis climate violence, and is best acknowledged, allocated, and embraced as such. Again, with Tronto, "such an approach is not universalistic in its construction, but it turns out to be radical and far-reaching in its effect."[11] I now take a critical look at several ways of considering responsibility in order, ultimately, to suggest that thinking about responsibility for climate violence means thinking about where oneself, one's community, or any number of corporate entities (companies, states, etc.) to which one is beholden is positioned in relation to that violence: as perpetrator? as victim? as beneficiary? as bystander? or as some complex combination thereof?

II. Responsibility as Moral Mathematics[12]

In opening this chapter I tried to express some of the pitfalls that inhere in thinking through climate violence from the perspective of well intentioned yet highly individualist registers of responsibility. Before making my main argument, it is necessary to examine more closely the ways that scholars have proposed we think about responsibility for climate change. I do this to draw attention to the ways in which political studies of climate responsibility tend to fall into two camps: one that locates responsibility in individuals themselves and another that locates responsibility in individuals as

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[11] Ibid., 315.

[12] In discussing "moral mathematics," I am drawing on Shalini Satkunanandan and Steve Vanderheiden, who offer usefully contrasting discussions of the possibility and desirability of calculating responsibility as if it were subject to mathematical precision.

represented by states and institutions. Note that this method of arrangement mirrors standard understandings that approach climate change as first and foremost an issue of environmental *policy* with a concomitant need that responsibility be highly calculable. Charles Eccleston and Frederic March, for example, suggest that environmental policy (in the US, but globally as well) is first put on the table by individuals and the social movements they spark, epitomized by Rachel Carson's 1962 *Silent Spring* and its aftermath. In this analysis, environmental policy is *then* addressed by states through legislation such as the 1969 National Environmental Policy Act in the United States. Finally, the environment is *then* addressed globally by international institutions, as the United Nations Environment Programme started to do in 1972.[13] First individuals take responsibility by creating problems as such, then states and institutions take responsibility by responding to those problems.

In this model, responsibility for climate change is cast in the mold of what Chad Lavin calls "liberal responsibility." My critique of the existing literature is that, whether responsibility is located in the individual as such or individuals collected by states and international institutions, the *concept* of responsibility at play is essentially liberal for two related reasons. The first commonality of the liberal approaches discussed below has to do with its methodological individualism. Even once responsibility is scaled up above the level of the individual, that is, the individual remains at the core of the concept of responsibility and groups are reduced to mere collections of individuals. Methodological individualism "denies that there are any actions, interests, or intentions of organizations

[13] Charles Eccleston and Frederic March, *Global Environmental Policy: Concepts, Principles, and Practice* (Boca Raton, FL: CRC Press / Taylor and Francis Group, 2011), xxxviii-xl.

that cannot be reduced to those of their constituent members. By this account … groups do not cause harm; only individuals do."[14] Second, liberal responsibility is but one variety, and, I am convinced, not the one best suited for confronting the violence of climate change and our positions in relation to that violence. I come back to this at the end of this section. For now, suffice it to say that liberal responsibility is both too calculating *and* too generic, resting on what Shalini Satkunanandan describes as the "moral calculus" approach to responsibility and endorsing what Steve Vanderheiden deems the "moral mathematics" approach. Moral mathematics reduces responsibility to a cognitive calculation rather than, say, one that includes ethical, reflexive, or indeed political entanglements.

Individual Mathematics

As I suggest above, I am not convinced that individual responsibility - when the *individual* is conceived non-relationally, as an "ideal moral agent of universalist ethics, which must abstract from specific circumstances in order to achieve responsible moral judgment"[15] is a fruitful approach to climate change. Yet many others are convinced, so it is necessary to engage this line of thinking. In line with the common sensibility of the liberal individual, many scholars support analyses that place the autonomous (and, indeed, often hypothetical) individual at the center of discussions about responsibility for climate change. As Melissa Lane points out, "moral philosophers have become preoccupied with the question of whether individuals have a moral obligation to take

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[14] Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford: Oxford UP, 2008), 169.
[15] Fiona Robinson, *The Ethics of Care: A Feminist Approach to Human Security* (Philadelphia, PA: Temple University Press, 2011), 28.

action on climate change … a question answered with a provocative negative by Sinnott-Armstrong."[16] For Sinnott-Armstrong, individuals lack a personal responsibility to decrease their contributions to climate change because such contributions are infinitely small, even across a lifetime. In line with Lane's claim, though, are a series of arguments defending individual responsibility for climate change. Avram Hiller, for example, responds to Sinnott-Armstrong with the claim that it is indeed morally wrong to participate in the kinds of ostensibly superfluous activities that contribute infinitesimally to a changing climate, such as a "sunday drive:" a drive that is purely luxurious and therefore "unnecessary." Arguing against Sinnott-Armstrong's view (deemed "individual causal inefficacy" by Hiller) Hiller suggests that it is indeed a moral hazard to emit superfluous emissions. Individual causal inefficacy, he writes, is exemplified by Dale Jamieson's insistence that "joy-riding in my '57 Chevy will not in itself change the climate."[17] In other words, against my view that climate violence is first and foremost a slow and structural process, Hiller insists that it ought nonetheless be assessed at the level of individual choices. Defending individual responsibility in turn, Hiller proposes that "it is *prima facie* wrong to perform an act which has an expected amount of harm greater than another easily available alternative."[18] Given the availability of *not* driving for fun, Hiller deems it inherently wrong to go for superfluous drives, even if the GHG emissions from that drive are minute.

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[16] Melissa Lane, "Political Theory of Climate Change," *Annual Review of Political Science* 19 (2016): 114; Walter Sinnott-Armstrong, "It's Not *My* Fault: Global Warming and Individual Moral Obligations," in *Perspectives on Climate Change: Science, Economics, Politics, Ethics*, eds. Walter Sinnott-Armstrong and Richard Howarth (Amsterdam: Elsevier, 2005)
[17] Quoted in Avram Hiller, "Climate Change and Individual Responsibility," *The Monist* 94, no. 3 (2011): 350.
[18] Ibid., 352.

Ultimately, the argument that Hiller makes hinges on a surprising comparison. Noting that arguments like Sinnott-Armstrong's against individual responsibility (not to drive) usually denounce individual responsibility in order to support a broader effort toward collective responsibility for political or structural change, Hiller suggests that both options suffer from the same shortfall. Here he suggests an irony in Sinnott-Armstrong's claim that instead of focusing on individual questions about responsibility we ought instead turn to politics, since the same argument can be made against political action: "famously, an individual's voting in an election is held to make virtually no expected difference. And it would be impossible to determine that a possible future drought was averted because one individual wrote a letter to her congressperson or carried a sign at a climate rally."[19] If we cannot calculate the importance of political action, that is, Hiller suggests that we turn to individual responsibility and behavior insofar as we can at least keep tabs and give an account of what we have done. If we cannot change the structure or process that leads to climate violence, we can at least keep a zealous eye on our carbon footprints.

I understand the distinction, analytically. Yet it is difficult to take Hiller completely seriously. Yes, there is a case to be made for avoiding one's own superfluous driving. Yet in casting doubt on precisely and only those individual acts aimed at broader and more impactful ends, Hiller wanders into analytical obscurity. It seems to me that voting, writing letters, picketing, or organizing to discredit broader activities that can be seen as superfluous is each as (if not more) important than opting out of one's Sunday drive. The former activities, perhaps incalculable, hold at least a slight promise of adding to

[19] Ibid., 365.

something unpredictable – in a hopeful sense – occurring, precisely because those individual acts are acted out publically.[20]

Whatever one decides about the particulars of this argument, or about the (in)efficacy of individual-liberal responsibility, the exchange between Sinnott-Armstrong and Hiller is important insofar as it exemplifies a wider trend toward ideal theory within climate ethics and moral philosophy, of seeking to ground responsibility or a lack thereof in calculable *principles* of one sort or another.

Given my concern to invite a turn to responsibility and activism by bringing out the dramatic elements of climate politics, and to thereby produce theory relevant to political engagement, such arguments are somewhat irrelevant. By assessing climate change as a problem of abstract philosophy or ideal theory, thinkers like Hiller produce philosophically sophisticated and beautiful works. Yet such works feel alienating 'on the ground' if they are never made concrete and if their importance is never plainly stated. In the grand scheme of climate violence, how many people are really out there deciding whether or not to go for a Sunday drive? And even if they were to read Hiller, and accordingly decline to drive on Sundays for pleasure, would a difference be made to the structures and processes that produce climate violence? At best, such a question makes the public crisis of climate change into a private one, at worst it tempts people to obsess

[20] Joan Tronto rightly asked me to think about the implications and appropriateness of avoiding the 'Sunday drive' alongside organizing against broader and more impactful activities like car racing, dune buggies, and the particularly arrogant and egregious case of "rolling coal," in which drivers "soup up their engines and remove their emissions controls to "roll coal," or belch black smoke, at pedestrians, cyclists and unsuspecting Prius drivers." It is in embracing the former and implicitly denouncing the latter individual acts that Hiller's argument makes little sense to me. For the discussion of rolling coal, see Hiroko Tabuchi, "Rolling Coal in Diesel Trucks, to Rebel and Provoke," *New York Times* (September 4, 2016): https://www.nytimes.com/2016/09/05/business/energy-environment/rolling-coal-in-diesel-trucks-to-rebel-and-provoke.html.

over their own lives rather than the world that we share in common. To be sure reflecting on one's own life is important. It is also clearly not enough.

Collective Calculations

When scholarship does not start with individuals and their responsibilities, the alternative is to think about other actors – most often the collective actor that is the state but occasionally sub-state units like cities and towns – through which responsibility might be assigned and discharged.[21] Such scholarship tends to take a broadly legalistic approach, concerning itself with "the interpretation of the meaning of substantive legal principles in multilateral agreements."[22] The most relevant way of thinking about responsibility for climate change along these lines is to think about the "common but differentiated responsibilities" of states as introduced by the UNFCCC in 1992.[23] In Article 3.1, the relevant text of the UNFCCC, this is the language we find:

> The Parties [member states] should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in

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[21] In the time since Trump's election and subsequent threats to defund key scientific research, for example, California Governor Jerry Brown notably replied that "if Trump turns off the satellites, California will launch its own damn satellite … We're going to collect that data." Likewise, cities and other regional units are often at the forefront of attempts to adapt to climate change. For the Brown quotation, see Christopher Cadelago, "Jerry Brown Strikes Defiant Tone: 'California Will Launch its Own Damn Satellite," *The Sacramento Bee* (December 14, 2016): http://www.sacbee.com/news/politics-government/capitol-alert/article120928688.html. With regard to cities' actions see Jeff Biggers, "Cities and States Lead on Climate Change," *New York Times* (November 30, 2016): https://www.nytimes.com/2016/11/30/opinion/cities-and-states-lead-on-climate-change.html.

[22] Paul Anderson, *Reforming Law and Economy for a Sustainable Earth: Critical Thought for Turbulent Times* (New York: Routledge, 2015), 198.

[23] See Christopher D. Stone, "Common but Differentiated Responsibilities in International Law," *The American Journal of International Law* 98, no. 2 (2004) for a discussion of "common but differentiated responsibility" in international law; see especially 278-81 for the argument that the *principle* if not the *language* goes back at least as far as the Treaty of Versailles (1919), continues through a 1965 GATT provision, and shows up periodically in the World Bank as well as other United Nations endeavors.

> accordance with their *common but differentiated responsibilities and respective capabilities*. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.[24]

While the legal meaning of Article 3.1 is an ongoing question, its broad contour is clear. "The idea," most simply, "is that some countries should contribute more than others to the provision of global public goods [climate health in this case], usually but not inevitably divided along a Rich-Poor axis."[25]

Steve Vanderheiden, as noted, was centrally concerned with theorizing Article 3.1 in *Atmospheric Justice*. Where Hiller barely nods to non-individual responsibility for climate change ("the fact that I have emphasized individuals' direct moral responsibility should not be taken as an argument that we have no political responsibilities as well"[26]), Vanderheiden's analysis is praiseworthy for going beyond a strictly individual approach. In *Atmospheric Justice*, Vanderheiden relates the question of individual responsibility to the responsibility of states and the international institutions in ways that are more productive. He thus introduces the political question of justice by taking seriously the idea of a global climate regime and the premise of "common but differentiated responsibility" embedded in the UNFCCC.[27] For Vanderheiden, settling questions of (common, differentiated) responsibility means settling questions of how to distribute the costs of mitigating climate change in a way that is equitable and fair to all of the (state)

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[24] United Nations, *United Nations Framework Convention on Climate Change*, 1992. Emphasis added.
[25] Stone, "CDR in International Law," 299.
[26] Hiller, 365.
[27] Much of the book is about this attempt. For the first mention see Vanderheiden, *Atmospheric Justice*, xvii.

parties involved.

Yet the turn to distributive justice is not dictated by Article 3.1. Within the common but differentiated approach to responsibility differences abound. With Vanderheiden, Eric Posner and David Weisbach for example agree on the need for an overarching treaty to coordinate policy: "whatever policies are chosen … governments around the world … will need to coordinate these policies, most likely through a treaty. The importance of an international treaty can scarcely be exaggerated."[28] However, Posner and Weisbach are skeptical of Vanderheiden's willingness to use the UNFCCC to start to address historical injustice (even though his suggestion would only be a start). Under the guise of fairness, Posner and Weisbach suggest that thinkers like Vanderheiden "improperly tie valid concerns about redistribution to the problem of reducing the effects of climate change."[29] Citing the argument uncontroversially attributed to some developing countries, that "the developed world should bear most of the cost of greenhouse gas mitigation efforts," Posner and Weisbach interpret that the reason the developed world should pay, in this line of thinking, is "because they are rich."[30]

Yet it is worth noting that arguments like Vanderheiden's do not actually link

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[28] Eric Posner and David Weisbach, *Climate Change Justice* (Princeton: Princeton UP, 2010), 2. For doubts about placing hope in a single treaty, or an "integrated regime," see Robert Keohane and David Victor, "The Regime Complex for Climate Change*," Perspectives on Politics* 9, no. 1 (2011): 7-23. Keohane and Victor first advocate a "regime complex" in which particular agreements tend to particular climate related harms (sea level, forced migration, desertification, etc.). By the end, though, they also caution against the viability of a regime complex approach. For a third take, which sees the need for "governors" other than the state given the task of climate governance, arguing that such governance "must not be performed by states only; it is also a matter for other authorities–for example, nongovernmental organizations and epistemic communities," see Sverker C. Jagers and Johannes Stripple, "Climate Governance Beyond the State," *Global Governance* 9, no. 3 (2003): 385.

[29] Posner and Weisbach, *Climate Change Justice*, 73.

[30] Ibid.

inequality and climate change arbitrarily (as is the suggestion underlying Posner and Weisbach's claim). Rather, Vanderheiden suggests that developed countries ought pay for mitigation not *because* they are rich, but because such wealth has in a sense been taken from the global commons, and in many cases from those same developing countries. The "respective capabilities" for responding did not appear out of nowhere, they were developed in the course of long histories spent industrializing, modernizing, and emitting tremendous amounts of GHGs. Instead of arguing that rich countries pay "because they are rich," Vanderheiden simply demands that history be taken into account when trying to parse out "common but differentiated responsibilities."

In the distinct but related context of the legacies of colonialism, Tronto argues that "the fact of relationship, the mutual constitutive effects of past colonial relationships, continues to create responsibilities," and that, as such, harmful relationships that are 'past' nonetheless continue to create responsibilities in the present.[31] A similar and intertwined line of reasoning applies in the case of mitigation: developed countries ought to pay not because they are rich. Rather, they are rich in no small part because of 'past' colonial wrongs they helped enable and that produced the underdeveloped postcolony. As such they have a responsibility to pay. Responsibility here, at the national level, comes not from being rich in the abstract, but from having become rich by developing in the distant past before it was possible to consider development's contribution to climate violence.

Vanderheiden's move to theorize responsibility beyond the individual, and therefore to locate it in the state and in international institutions themselves, is a step forward. Yet,

[31] Tronto, "Relational Responsibilities," 312.

as with my opening hypotheticals, even approaches like his hark back, by and large, to what Lavin describes as the liberal model of responsibility and what Iris Marion Young calls the "liability model."[32] So while the ostensible unit of analysis shifts between the individual, the state, and international institutions, the turn to responsibility for climate change, if made at all, has usually been made in the name of political liberalism and using the method of moral mathematics. Whatever important details and differences inhere in such debates, the point here is that even when responsibility is scaled up to the levels of collectives, the quality and characteristics of responsibility at play continue to mirror that held by individuals. It concerns (legal) liability, calculability, and a teleological assumption that responsibility can be accounted for, discharged, or otherwise completed in some reasonable timeframe. Responsibility *belongs* to individuals and states in such a way that figures those actors as specifically *possessive* individuals rather than, say, relational human and corporate bodies. In light of climate change, scaling individual responsibility up to the level of states is a step forward on liberal terms insofar as discharging this sort of responsibility might be bolstered by an 'economy of scale' effect: actions undertaken by states are more effective than actions undertaken by individuals alone since they come closer to affecting the structures out of which climate change emerges. Yet given the ubiquity of climate *violence* and the relations forged between peoples who contribute to and are harmed by such violence unevenly, it is

[32] See Iris Marion Young, "Responsibility and Global Justice: A Social Connection Model," *Social Philosophy & Policy* 23, no. 1 (2006): 102-30 and *Responsibility for Justice* (Oxford: Oxford UP, 2011). Vanderheiden's work contains a partial exception in that he makes an effort to root his causal / legal conception of responsibility in a prior sense of moral responsibility. Yet his sense of moral responsibility seems to me every bit as liberal as his sense of causal responsibility. "In many ways," he writes, "legal responsibility is analogous to moral responsibility, as the use of such terms as "fault" and "liability" suggest." *Atmospheric Justice*, 150.

unclear that starting from liberal theories of responsibility that locate responsibility in possessive individuals and according to methodological individualism can ever really grasp the severity of the problem, let alone (motivate people to) respond to it adequately.

Moving beyond the singular individual, a second problem arises with regard to thinking through the liberal responsibility of states: assigning responsibility at the level of states does not necessarily reflect the groupings or classes that climate violence produces (more on which in the next chapter). Importantly, this view divides the world and produces relevant state-collectivities based on what Elizabeth Cripps calls an intentionalist model of collectivities. "For many years" Cripps writes, "the dominant view was that sets of individuals constitute collectivities because they think of themselves as doing so: either because each individual considers herself to be a member of some group with the others, or because they all jointly intend to do something. This, broadly put, is the intentionalist view."[33] In other words, collectivities form when and where people imagine themselves to be a part of them: we can think here of Benedict Anderson's classic argument in *Imagined Communities*.[34] Yet as I pursue in the next chapter, it might make more sense to think of collectivities beyond the nation-state when it comes to climate violence. Given that virtually any single state will contain people whose carbon emissions (direct and indirect) range from negative (through the purchase of offsets, participation in mitigation projects, etc), to zero, to tremendous, we might instead think about collectivities to which we belong along lines of *violence:* in terms of

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[33] Elizabeth Cripps, *Climate Change and the Moral Agent: Individual Duties in an Interdependent World* (Oxford: Oxford UP, 2013), 28. Cripps attributes the idea to Margaret Gilbert, *On Social Facts* (London: Routledge, 1989) and *A Theory of Political Obligation* (Oxford: Oxford UP, 2006).

[34] Benedict Anderson, *Imagined Communities* 2nd ed. (London: Verso, 2006).

victims, perpetrators, bystanders, and beneficiaries. Or we might think about them along *economic* lines: in terms of a "transnational capitalist class,"[35] a transnational working class, the transnational poor, those from whom resources are expropriated rather than labor exploited, and so on.[36] The point is that the state is not necessarily the best indicator of relevant collectivities.

Finally, the shift from strictly individual responsibility to state/international institutional responsibility explicitly or implicitly suggests that responsibility for climate change is primarily a question of distribution: that distributive justice is the justice around which we ought to orient theories of responsibility for climate change.[37] Vanderheiden exemplifies the latter point here, when he notes that "our practical question concerns legal responsibility, because a climate regime must hold parties liable for climate-related harm."[38] Distributing liability fairly thus exhausts the question of responsibility. With thinkers like Young, Lavin, and Jade Schiff we can critique and go beyond the reliance on a strict liability and liberal model of responsibility held by individuals, mirrored by collectives-as-states, and assumed by many of those who approach climate change as only or primarily an issue of distributive justice.

III. Responsibility "Beyond the Moral Calculus"

As suggested, the moral mathematics approach to adjudicating responsibility is not

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[35] Anderson, *Sustainable Earth*, 176.
[36] For a recent debate on the expropriation / exploitation divide, see Michael Dawson, "Hidden in Plain Sight: A Note on Legitimation Crises and the Racial Order," *Critical Historical Studies* 3, no. 1 (2016): 143-61 and Nancy Fraser, "Expropriation and Exploitation in Racialized Capitalism: A Reply to Michael Dawson," *Critical Historical Studies* 3, no. 1 (2016): 163-78.
[37] For the limitations of distributive justice in the slightly different context of international law, see Anderson, *Sustainable Earth*, 198-206.
[38] Ibid., 145.

enough in the case of climate violence. As thinkers like Hans Jonas and Stephen Gardiner suggest, our ethical frameworks and political institutions – within which rest the kinds of liberal responsibility just discussed – were not designed to address problems spanning such vast expanses of space and time, as does climate change. Per Jonas, "modern technology has introduced actions of such novel scale, objects, and consequences that the framework of former ethics can no longer contain them."[39] Or, with Gardiner, perhaps "our existing institutions were simply not designed for, and did not evolve in response to, global environmental problems that play out over many generations."[40] Finally, as Cripps writes, climate change "is a global-scale problem, but one that does not result from intentional collective action and to which *we are not yet set up to respond collectively*.[41] Perhaps, that is, 'global humanity' is simply not yet equipped to confront the problem of anthropogenic climate change.

Yet to say that past ethics cannot fully address present concerns decidedly does not imply that no present response can be composed. Political theorists have turned directly to rethinking responsibility in recent years, a turn that provides the broad contours to an approach that can help disrupt and refocus the above conversation in productive ways. In light of the two factors that frustrate discussions about *responsibility* for climate change mentioned above – that responsibility is highly individual and the collectives in question are states, which are perhaps not the most appropriate collectives in light of climate

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[39] Hans Jonas, *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (Chicago: University of Chicago Press, 1984), 6.
[40] Stephen Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (Oxford: Oxford UP, 2011), 431-2.
[41] Elizabeth Cripps, *Climate Change and the Moral Agent: Individual Duties in an Interdependent World* (Oxford: Oxford UP, 2013), 197. Emphasis mine.

change – I now want to suggest that we ought ask a prior question of *responsiveness*.

The turn to responsiveness runs against the argument that in lieu of an ideal and well-functioning climate regime, we ought default to locating responsibility in sovereign individuals (*homo oeconomicus*). Instead, this line of thinking holds that we can reconceptualize responsibility in a way that is less concerned with calculation and less individualistic and individuating. In place of attaining liberal responsibility, it suggests a goal of *political* responsibility, political insofar as it arises in and through our relations to others and to the broader world. Political responsibility, in other words, "needs to ponder the obligations–past, present, and future–of human beings in their domain of life and action as members of political collectivity."[42]

Yet because the gulf between liberal responsibility and the turn to responsiveness is so wide, I want to show how we get from the former to the latter by surveying some of the more relevant works in political theory's turn to responsibility, a turn implicitly or explicitly rooted in Hannah Arendt's short essay "Collective Responsibility." First, Arendt raises the question of collective responsibility as such. Along the way, she helps us to differentiate guilt from responsibility, a distinction that is important for locating the place for liability, calculability, and distributive justice in the response to climate change on the one hand, and the place for something less calculable on the other. In turn, Lavin provides a nice summary of the reasons for shifting away from liberal responsibility, which Shalini Satkunanandan complements by turning our focus to the problems specific to calculability. Finally, Schiff provides a compelling argument in favor of a turn to

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[42] Antonio Y. Vázquez-Arroyo, *Political Responsibility: Responding to Predicaments of Power* (New York: Columbia UP, 2016), xvii.

responsive*ness* that is especially apropos of climate violence and the collectives thus generated.

Guilt and/or Collective Responsibility

"I do not know when the term "collective responsibility" first made it appearance," Hannah Arendt wrote, "but I am reasonably sure that not only the term but also the problems it implies owe their relevance and general interest to political predicaments as distinguished from legal or moral ones."[43] While applications of the political, the legal, and the moral may at times only be analytically distinct, it is nonetheless useful to separate them as such. In light of the above discussion, Arendt's distinction is particularly useful since it allows us to pose directly the *political* question of collective responsibility of individuals and groups, after having edged away from the calculating liberal answers discussed above.

Indeed Arendt's work allows us to make a further distinction between purely *individual* responsibility – where I am responsible for my actions, like taking a Sunday drive – and 'individual' responsibility for *collective* endeavors – where I am responsible for working with similarly situated others to address something common: shifting my community's electricity generation from carbon sources to renewable ones, perhaps. The former is represented by familiar demands to change one's shopping habits, one's consumption patterns, or one's light bulbs in order to counter climate change. The latter might include the former, but also accounts for and necessarily goes beyond it, asking about an individual's responsibility for the wrongs done by collectives to which she or he

[43] Hannah Arendt, "Collective Responsibility," in *Responsibility and Judgment*, ed. Jerome Kohn (New York: Random House, 2003), 148.

belongs. In Arendt's terms, this involves a shift from thinking about one's *guilt* to one's *responsibility*. Individual members of collectives, Arendt claims, can neither *be* nor *feel* guilty if they have not actively participated in evil. "There is no such thing as being or feeling guilty for things that happened without oneself actively participating in them."[44] Climate change, against thinkers like Hiller, is too vast for individual contributions to constitute a significant enough basis for assigning guilt to individuals. Likewise, the kinds of participation in harm associated with Arendt's *guilt* are categorically different from the more diluted kinds of harm associated with one's oversized carbon footprint: it would be difficult if not morally suspect to sustain the case that driving to work constitutes the same kind of moral harm as actively participating in the evils perpetrated in Nazi Germany.

Yet unwilling to give up on the idea that bystanders and others who *enable* harm without *actively participating* in it are implicated to some degree, Arendt helpfully turns to the concept of responsibility. Having moved away from guilt as the concept through which to engage bystanders, beneficiaries, and others who enable harm, whom we can call *passive* rather than *active* participants, Arendt holds that "there *is* such thing as responsibility for things one has not done; one can be held liable for them."[45] Though her point of reference, again, is that of the postwar condition of Germans as such, here her position *is* relevant to my case. Bystanding individuals should neither feel nor be seen as *guilty* for the things a universal to which they belong (Germans in her case; humans in mine) has done. Yet they can be thought of as responsible. Here, Steven Esquith is

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[44] Ibid., 147. Italics mine.
[45] Ibid.

incisive. In relation to a US company that, in 1908, had benefitted from convict-leasing resulting in the death of Green Cottenham, an African-American who had been charged with vagrancy, Esquith points to that company's contemporary denial of guilt. In response, Esquith highlights the place for bystander and beneficiary responsibility:

> When contacted by Blackmon, U.S. Steel officials denied that such practices had occurred and then suggested that there is no reason to revisit these matters. For corporations that believe they are being responsible citizens now, historical injustices are not an issue. I will argue that such corporations (including their employees and stockholders) are complicit everyday bystanders to severe violence. Because they continue to enjoy benefits from these past unjust practices, they have shared and institutional responsibilities to bring these benefits to light and create appropriate methods for addressing them fairly.[46]

While contemporary employees and stockholders of US Steel are not guilty of the racial injustice perpetrated in 1908, they are responsible insofar as they benefit from the corporation passed on by those persons guilty of placing Cottenham in the slave-like conditions that led to his death. To ignore this responsibility is to remain a bystander to continued injustice; to avow it requires some form of redress.

Guilt is distinct from collective responsibility because "where all are guilty, nobody is. Guilt, unlike responsibility, always singles out; it is strictly personal."[47] Responsibility per Arendt is *not* personal in the way that guilt is. Indeed it is always already collective. As Young notes, Arendt's collective responsibility contains two *political* components:

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[46] Steven Esquith, *The Political Responsibilities of Everyday Bystanders* (University Park, PA: Pennsylvania State UP, 2010), 59.
[47] Ibid.

"(1) I am responsible for what I have not done, and (2) the reason for my responsibility is my membership in a group which no voluntary action of mine can dissolve."[48] Against the intentionalist conception of community, thinkers like Arendt and Young suggest the unavoidability of communal life and responsibility. While we may not be individually *guilty* of climate violence, this reading of Arendt allows us to suggest that we may indeed be *responsible* for it (as individuals and as members of collectives) in some still-significant way.

But how? If we are neither to think about responsibility for climate violence as reducible to individual guilt, nor as located only in the intentionalist 'collectivity' of the nation-state, to what might the collective aspect of collective responsibility for climate violence refer?

I start to answer that question in the concluding section of this chapter, and address it more fully in the next chapter. Before getting there, I want to be more specific about the usefulness and the limitations of applying Arendt's thinking about responsibility to the case of climate violence. While each of the following thinkers offer distinct studies and would propose we think somewhat differently about responsibility, I read them together (and insofar as they each circle around Arendtian themes) in order to arrive at a concept of situated responsibility in the concluding section: I do not think their differences are sufficient enough to preclude such a move.

Responsibility beyond Liability

Though I find Arendt's discussion tremendously useful, I am not convinced by one aspect: the connection that inheres between collective responsibility and liability. I am of

[48] Young, *Responsibility for Justice*, 78.

course not the first to want to distance the concept of collective responsibility from individuating and calculating aspects of the language of liability, which Arendt retains. Here, Young suggests that applying liability to collective responsibility "is inappropriate, pragmatically, in political discussion, because it tends to make people defensive and engage in "blame switching.""[49] This may well hold true in the case of collective responsibility for climate violence: to be sure many people do not take well to being held liable for that violence and often go so far as to deny climate change entirely, as we know. Yet there is more to be said in favor of separating the question of liability from the question of collective responsibility.

To come to a theory of situated responsibility, I now turn to a series of reasons given for separating liability from collective responsibility. There are at least three issues at stake here. First, responsibility as liability largely assumes individual autonomy rather than rightly regarding it as one potential (and perhaps rare) condition. Second and relatedly, turning to Young, we see that liberal responsibility (the "liability model, per Young) risks becoming inundated with the details of calculation: questions of where and how to hold whom liable, on what principles, according to which rules, and so on threaten to drown bigger questions and, specifically, forward-looking challenges of responsibility. Third, per Satkunanandan, reducing responsibility to its liberal variety also pushes responsibility too far toward the domain of *inattentive* calculation: calculation done without thoughtful reflection, calculation in the abstract, calculation without attentiveness to incalculable qualities resulting in an "openness" that can "encourage an embrace of the fullness of our responsibility" through which, indeed, even calculable

[49] Ibid., 100.

elements are better addressed.[50]

In *The Politics of Responsibility*, Lavin covers the first of these issues. There he points to the limitations of what he calls "liberal responsibility" and argues in favor of a "postliberal" view.[51] Specifically, liberal responsibility for Lavin is based on an often-fallacious commitment to ahistorical, *a priori* individualism, rooted in the "autonomous and coherent subject that voluntarily chooses actions."[52] While this conception of the individual might at times be a useful one (when attempting, for example, to attribute straightforward moral guilt or legal liability), Lavin points out that such an autonomous and coherent subject can hardly be assumed: the sovereign individual "appears today increasingly threatened by revelations of the degree to which individual bodies and wills are permeated and formed by external conditions."[53] In other words, if the sovereign individual were ever a safe assumption it no longer is under conditions of mass culture, globalization, postmodern capitalism, climate violence, and so on. The application to responsibility for climate violence is clear: it would be difficult to sustain a line of argument claiming that the agent that causes climate change is a fully sovereign individual one. Indeed a decent one-line understanding of climate violence might be that it is *created* by a tremendous collection of people yet *willed* by none of them. Instead, postliberal ideas about responsibility (Lavin mentions thinkers like Bernard Williams, Karl Marx, and Judith Butler) "begin with the proposition that desires and abilities arise not from any essential self but from cultural and disciplinary inputs that form subjects;

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[50] Satkunanandan, *Extraordinary Responsibility*, 190.
[51] For Lavin, "postliberal" is a big tent, covering "marxism, psychoanalysis, communitarianism, feminism, and postmodernism." *Responsibility*, xi.
[52] Ibid., 11.
[53] Ibid.

the individual is not the cause but rather the effect of social life."[54] We who continue to drive to work, to fly to conferences, to throw away plastic containers, then, must find a way to think about responsibility that moves away from sovereign liability insofar as even if we were to stop doing those things, we would not contribute in any significant way to the cessation or repair of climate violence.

Somewhat relatedly, Hans Jonas intimated in 1973 that responsibility now faces a scope problem: a critical disjuncture separates a "traditional" (face-to-face) ethic of responsibility and the kinds of problems that humans face in the technological age.[55] Per Jonas, again, "modern technology has introduced actions of such novel scale, objects, and consequences that the framework of former ethics can no longer contain them."[56] We can read Jonas's 'former,' neighborly ethics of responsibility as overlapping substantially with liberal responsibility insofar as each sort locates responsibility in individuals: I am responsible for or to the things I can see in and around my small community or, extrapolating, things I can calculate according to methodological individualist methods. Yet this view limits the extent to which one can confront one's responsibility for collective actions and, indeed, for future reverberations of contemporary and past actions. Or, per Lavin again, given the need to assign responsibility for events with structural underpinnings like Abu Ghraib, police brutality, terrorism, and, I would add, climate change, we now see "the incommensurability of dominant conceptions of responsibility

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[54] Ibid., 12.
[55] Hans Jonas, "Technology and Responsibility: Reflections on the New Tasks of Ethics" *Social Research* 40, no. 1 (1973): 31-54; reproduced the following year in *Philosophical Essays: From Ancient Creed to Technological Man* (Englewood Cliffs, NJ: Prentice-Hall, 1974), 3-20. See also Jonas's later work *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (Chicago: University of Chicago Press, 1984).
[56] Jonas, "Technology and Responsibility," 8.

and enduring political urgencies."[57] The one cannot well account for the other.

The broader point to take away from Jonas and Lavin is that when conceptions of responsibility are rooted in an isolated "I," or in face-to-face interactions with friends, neighbors, Others, and so on, they falter in light of contemporary issues born from (post)modernity's intensification of technology, globalization, etc. In light of the technological and (post)industrial structures out of which climate change arises, responsibility itself takes on a new set of constraints and delivers a new set of obligations than it might have in previous eras.

Arendt's ideas about collective responsibility, written in the same era as Jonas's claims about the insufficiency of traditional forms of responsibility, usefully take us some way toward the new ethics Jonas sought, insofar as they incorporate a broader space of concern.[58] In the quest to theorize a way of responding to collective issues (somewhat yet imperfectly like climate change), Arendt offers a useful starting point by shifting attention away from individual guilt and toward collective responsibility. Yet in de- and then re-contextualizing her thought away from the question of postwar Germany and toward that of global anthropogenic climate change, the question of liability is altered.

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[57] Ibid., ix.

[58] Jonas's specific advice was to accept a future-oriented responsibility in which one imagined today what their actions will have meant tomorrow, in the following years, decades, centuries, and so on. Arendt avoids the temporal issue, but does broaden responsibility past the proximate. With regard to Jonas and Arendt, Lawrence Vogel points out that "there's scant public record of their reactions to each other's work" (1). Still, he finds in a few recorded interactions between the two a fundamental disagreement at the heart of how each understands responsibility: where Jonas insists on the continued need for metaphysical answers about "a truth about man, an idea of the supreme good, and a final directive," (7), Arendt accepts a reliance on judgment and "thinking without banisters" (18). Still, the interactions Vogel points to are somewhat thin and his conclusions too preliminary for us to conclude whether Arendt and Jonas were working with compatible or diverging notions of responsibility. See Lawrence Vogel, "The Responsibility of Thinking in Dark Times: Hannah Arendt versus Hans Jonas," *Graduate Faculty Philosophy Journal* 29, no. 1 (2008): 1-21.

Reconsider her above claim that while there is no collective guilt insofar as one cannot be guilty of something they have not done, "there *is* such thing as responsibility for things one has not done; one can be held liable for them."[59] In the case of climate change there is an idea very much worth holding on to here, the idea that one can be seen – or see oneself – as responsible for something one has not *done*, where "doing" implies fully autonomous action and willed causation. Yet if this thought is followed through, especially but not only in light of climate change, we might question Arendt's second implication, that there is a direct link between *being* or *holding* responsible and *being* or *being held* liable. Insofar as liability, like guilt, has a tendency toward individuation and calculation, we might want to push back on this connection before applying Arendt's collective responsibility to the case of climate violence.

Indeed Iris Marion Young expresses this second tension in the association of liability and collective responsibility throughout *Responsibility for Justice*, concerning the dangers of the primarily backward-looking tendencies of the concept of liability. Engaging directly with Arendt's turn to collective responsibility, Young argues against the backward-looking nature of liability and instead proposes a much commented "social connection model" of responsibility. In the liability model:

> One assigns responsibility to particular agents whose actions can be shown to be causally connected to the circumstances for which responsibility is sought. This agent can be a collective entity, such as a corporation, and when it is, that entity can be treated as a single agent for the purposes of assigning responsibility … [t]o say that an agent is responsible means that they are blameworthy for an act or its

[59] Ibid.

outcome.[60]

By now, this likely sounds familiar as there is significant overlap between Young's liability model, Lavin's liberal one, and much of the extant work on climate change. Yet where Lavin is concerned with the autonomy of the liable individual in question, Young highlights more directly the problem with finding individuals liable for structural processes to begin with:

> The primary reason that the liability model does not apply to issues of structural injustice is that structures are produced and reproduced by large numbers of people acting according to normally accepted rules and practices, and it is in the nature of such structural processes that their potentially harmful effects cannot be traced directly to any particular contributors to the process.[61]

Liability alone simply cannot account for structural injustice, nor could enforcing liability ever cause it to cease.

Instead, Young proposes a "social connection model" of responsibility, in which people are responsible not as liable individuals but "by virtue of their social roles." To quote once more at length, the social connection model of responsibility:

> Says that individuals bear responsibility for structural injustice because they contribute by their actions to the processes that produce unjust outcomes. Our responsibility derives from belonging together with others in a system of interdependent processes of cooperation and competition through which we seek benefits and aim to realize projects …. All who dwell within the structures must

[60] Young, *Responsibility for Justice*, 97.
[61] Ibid., 100.

> take responsibility for remedying injustices they cause, though none is specifically liable for the harm in a legal sense. Responsibility in relation to injustice thus derives not from living under a common constitution [we might here think of the intentionalist model of collectives], but rather from participating in the diverse institutional processes that produce structural injustice.[62]

In drawing on Young's work in my Chapter 2, I have already pointed to the ways that "structural injustice" and "climate violence" overlap *and* differ. From the angle of political responsibility, they overlap greatly, and Young's work shows the need to think through social connections instead of – or at least in addition to – personal liability.

Still, I find it important to note that the legitimate reservations that Lavin and Young have about associating responsibility with liability themselves have limits. In the different ways discussed above, both Lavin and Young give up too much ground by moving postliberal responsibility completely away from liability.[63] To be sure, they are right to want to delimit liability and guilt: in the context of postwar German guilt, Arendt notes that the sentiment "'We are all guilty' that at first hearing sounded so very noble and tempting has actually only served to exculpate to a considerable degree those who actually were guilty."[64] In other words, though perhaps an admirable moral position, the assumption of guilt on behalf of nonguilty Germans (beneficiaries instead of perpetrators, perhaps) served politically to let truly guilty Germans off the hook. "We are all guilty," Arendt finishes the thought, "is actually a declaration of solidarity with the

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[62] Ibid., 105.
[63] Though Young doesn't pursue the point, she does acknowledge that a liability model ought not be completely replaced: "I do not aim to replace or reject the liability model. I am claiming instead that the liability model is appropriate in some contexts and not others." Ibid.
[64] Arendt, "Collective Responsibility," 147.

wrongdoers."[65]

Coming back to climate violence, charging the *anthropos* with guilt for bringing about the *anthropocene* paves over differences between 1) actually guilty parties, 2) those of us who participate in processes that lead to slow violence, and 3) those who still live to some degree outside of such processes. Lavin follows Young (parenthetically referencing her 2003 essay "From Guilt to Solidarity")[66] on this point, noting a flip side to Arendt's warning that universal guilt means identifying with wrongdoers. On this he writes that "because liberal responsibility focuses on providing particular indictments, it simultaneously provides general exonerations."[67] So whereas universal guilt exonerates actually guilty parties, focusing too narrowly on particular guilts risks letting those who contribute passively to harm off the hook entirely. Young and Lavin are right to suggest the need to keep a backward looking view a safe distance from forward looking practices of and engagements with responsibility on behalf of postliberal (not necessarily intentionalist) collectives. Still, in the case of something like climate change (at least) we ought not be too quick to give up entirely on guilt and liability for past actions, lest we let go of the more justice-oriented approaches to "common but differentiated responsibility" propounded by Vanderheiden and others.

Eschewing guilt and liability entirely, for example, would collapse the differences between active and passive contributions to climate violence. As an example of active contributions, we might consider the Exxon corporation (now ExxonMobil, "the world's

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[65] Ibid, 148.
[66] Iris Marion Young, "From Guilt to Solidarity: Sweatshops and Political Responsibility," *Dissent* (Spring 2013).
[67] Lavin, *Responsibility*, 14.

largest oil and gas company"),[68] a defendant in the case of Native Village of Kivalina; City of Kivalina v. ExxonMobil et al. discussed in Chapter 2.[69] Recent investigative reporting paints a clear picture of the guilt and potential liability Exxon bears for burying the story and science of climate change early on. "Exxon was aware of climate change as early as 1977, 11 years before it became a public issue" Shannon Hall writes.[70] "In the 1970s and 1980s," she continues, Exxon:

> employed top scientists to look into the issue and launched its own ambitious research program that empirically sampled carbon dioxide and built rigorous climate models. Exxon even spent more than $1 million on a tanker project that would tackle how much CO2 is absorbed by the oceans. It was one of the biggest scientific questions of the time, meaning that Exxon was truly conducting unprecedented research.[71]

And yet, of course, Exxon buried the story. "By 1989," Hall continues, "The company had helped create the Global Climate Coalition … to question the scientific basis for concern about climate change" and "helped to prevent the U.S. From signing the … Kyoto protocol in 1998." Finally, since as recently as 2014, per Greenpeace, "Exxon has

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[68] Shannon Hall, "Exxon Knew About Climate Change Almost 40 Years Ago," *Scientific American*, October 25, 2015, accessed August 24, 2016, http://www.scientificamerican.com /article/exxon-knew-about-climate-change-almost-40-years-ago/.

[69] Native Village of Kivalina; City of Kivalina v. ExxonMobil et al., No. 09-17490 11641 (9th cir. 2011) http://cdn.ca9.uscourts.gov/ datastore/opinions/2012/09/25/09-17490.pdf.

[70] Hall, "Exxon Knew." For reference, NASA scientist James Hanson's infamous testimony in which he warned congress that climate change was already occurring didn't take place until 1988.

[71] Hall, "Exxon Knew." Not that not only was this early research unprecedented, but also remarkably *good*: a scientist named James Black working in 1977 warned Exxon that "doubling CO2 gasses … would increase average global temperatures by two or three degrees–a number that is *consistent with the scientific consensus today*." Emphasis added.

spent more than $30 million on think tanks that promote climate denial."[72] On top of clear causal lines of moral guilt if not legal liability for producing the fossil fuels that release GHGs when metabolized, Exxon intentionally covered up the science it itself had discovered.[73] It would be a mistake to let go of backward-looking guilt and liability in favor of a forward-looking responsibility, even as forward-looking responsibility aimed at the basic structural sources of violence is of primary importance.

Here Shalini Satkunanandan argues (and Young also notes) that the two are actually compatible, by claiming that endorsing forward-looking, postliberal responsibility need not mean giving up on backward-facing ideas like guilt and liability when such categories are appropriate. Satkunanandan's terms are again different: calculable and extraordinary responsibility. Like backward-looking guilt or liberal responsibility, in the calculable variety "we expect that our responsibilities are to some extent predictable; that they are to some extent specifiable and so can assume the form of relatively discrete tasks."[74] Extraordinary responsibility, instead, is broad, all encompassing, and requires a responsive ethos rather than a calculating moralism, aimed at bringing to the fore "the kinds of responsibility that are always present but that are ordinarily concealed by the calculable responsibility framework."[75] This is extraordinary not because it refers to some

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[72] Ibid.
[73] Of course, especially on the side of guilt for producing fossil fuels (and thus the conditions of possibility for climate violence), Exxon is far from alone. For a clear expression of where such guilt lies, see Suzanne Goldenberg, "Just 90 Companies Caused Two-Thirds of Man-Made Global Warming Emissions," *The Guardian*, November 20, 2013, accessed August 24, 2016, https://www.theguardian.com/environment/2013/nov/20/90-companies-man-made-global-warming-emissions-climate-change.
[74] Satkunanandan, 10.
[75] Ibid., 7.

Schmittian politics of the exception,[76] but because it is literally extra-ordinary: it pulls us away from the calculability so inherent in common sense thinking about responsibility and reflected in the approaches to climate change discussed above.

Yet to say that calculation *can* conceal the extraordinary is not to suggest that the latter ought eclipse the former entirely:

> Although thinking about responsibility as a series of calculable debts can degenerate into pettifogging … calculable responsibility is helpful. The problem is that calculable responsibility is often our default way of thinking about responsibility …. I ultimately argue for a political ethos that both gives calculable responsibility its place and strives to keep it in its place.[77]

Or, per Thomas Keenan:

> It is when we do not know exactly what we should do, when the effects and conditions of our actions can no longer be calculated, and when we have nowhere else to turn, not even back onto our "self," that we encounter something like responsibility.[78]

Though there are many contenders, climate violence is high up on the list of problems about which 'we do not know exactly what we should do' because the situation itself exceeds easy calculability. For Satkunanandan and Keenan it is here that extraordinary

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[76] Satkunanandan makes this point explicit: "by an appeal to an extraordinary responsibility, I am not referring to or valorizing a responsibility that is exceptional or that arise only in a state of emergency." ibid. For such a politics see Carl Schmitt, *Political Theology: Four Chapters on the Concept of Sovereignty* (Chicago: University of Chicago Press, 2005) and the expansive literatures that have sprung up around Schmitt in recent decades.
[77] Ibid., 5.
[78] Thomas Keenan, *Fables of Responsibility: Aberrations and Predicaments in Ethics and Politics* (Stanford: Stanford UP, 1997), 2.

responsibility comes into play. Lastly and importantly, Satkunanandan tells us that when being responsible is not reducible to calculation, "to be responsible is to be responsive."[79]

At last, we can turn directly to the idea and project of *responsiveness*. While I will want to agree that in some sense, to be responsible is to be responsive, I also want to posit that there is value in thinking about responsiveness as a prior site of engagement, cultivation, or, on the other hand, refusal, missed opportunity, or thoughtlessness.

Here, Jade Schiff's *Burdens of Political Responsibility* is beautifully helpful. In *Burdens*, Schiff plots a way of thinking about responsibility as always already collective, aimed at structural injustice, and yet open to active participation rather than in some sense overdetermined. Whereas responsibility is something – some *thing* – that one must enact in order to discharge or refuse to enact in order to ignore, responsiveness has more to do with avowing, struggling with, and participating in one's relations to the broader world. Though I will modify her definition slightly, Schiff prompts this turn to responsiveness, defining the latter thusly: "by "responsiveness" I mean the acknowledgment and experience of connections between our everyday activities and the suffering of others."[80] Following Young, Schiff's main examples – sweatshop labor, paradigmatically – mean that it makes sense for her to focus on 'our' connection to the 'suffering of others.' Yet given the more-than-human scope of climate violence, I think the concept of responsiveness can aim beyond the suffering of others to structures of power and processes of violence, even as such suffering remains a key target. More of a

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[79] Satkunanandan, *Responsibility*, 8.
[80] Jade Larissa Schiff, *Burdens of Political Responsibility: Narrative and the Cultivation of Responsiveness* (New York: Cambridge UP, 2014), 34.

disposition to be cultivated than an action to be discharged, responsiveness shifts the question from one of acting or refusing to act back a step, asking instead about acknowledging or disavowing the very situation against which one might act or refuse to act.

Further, Schiff convincingly suggests starting with responsiveness insofar as we cannot assume – as Arendt, Young, and others do – that our mere inclusion in a collectivity offers any guarantee of our desire to accept responsibility. Accepting responsibility requires, in a sense, first becoming responsive, an aspect that Arendt and Young might implicitly acknowledge, but that is not placed front and center in their analyses.

In attempting to broaden the idea of responsibility past its most simplistic causal forms, Paul Anderson writes that "it is a mistake to think that issues of moral responsibility (including liability) are exhausted by those of causal responsibility." He continues, sounding an Arendtian tone, to claim "that beneficiaries of past harm may not be causally responsible for past harm does not necessarily mean that they cannot be held liable for ongoing harms to descendants of the original victims."[81] I agree here, but I would argue that Schiff allows us to take this further, to claim that whether beneficiaries of past harm are or are not causally responsible for that harm, and whether or not liability is the best political crystallization of responsibility, there is no reason to suggest that beneficiaries and bystanders of climate change (categories which encompass the world's relatively wealthy, those who participate in its capitalist economy) are not also and perhaps especially obligated to cultivate a sense of responsiveness to the violence of

[81] Anderson, *Sustainable Earth*, 200.

climate change.

Here, Schiff is explicit, writing that "the problem of responsiveness … is a problem for those who are implicated in suffering, and not for those in whose suffering they are implicated."[82] Analytically, I think this is correct. Yet in the context of our everyday lives, most of us will never be excused from the 'problem' of responsiveness to climate change, insofar as most of us are implicated in climate violence (if not in the 'suffering of others' directly).

A turn to responsiveness is thus both required by the turn to thinking about climate violence and a useful concept for thinking about how to start responding when we admittedly 'do not know exactly what we should do.' I now turn to these tasks, and to the difference responsiveness might make in the project of drafting a specifically political responsibility for climate change.

IV. Responsiveness, Climate Violence, and Situated Responsibility

In opening this chapter, I walked through hypothetical and then scholarly proposals for how we ought think about responsibility for climate change. Finding them overly liberal in the sense that Chad Lavin describes, I suggested that 'responsiveness' might offer a better starting point insofar as it figures responsibility as necessarily collective, and insofar as it reaches further back into the process of acknowledging, accepting, and taking responsibility for the violence of climate change – a violence for which most people are responsible and yet of which few people are guilty.

In closing, I want to suggest some potential goals of responsiveness to climate violence, by describing one way that responsiveness might lead implicated parties to

[82] Schiff, *Burdens*, 41.

embrace and indeed struggle with their situated responsibility.

Yet first, it is worth reiterating and specifying the concrete rather than general political drawbacks of relying on liberal responsibility for climate change. One aspect of liberal, calculable responsibility that I postponed mentioning until now (and, indeed, that many of the above authors decline to thematize) has to do with its logical proximity to and compatibility with neoclassical economics, a parent category of the kinds of neoliberalism discussed in Chapter 3. Consider this description of one element of neoclassical economics – preference utilitarianism – as described by Paul Anderson:

> Preference utilitarianism is a moral theory that holds that the good consists in the satisfaction of people's preferences (utility) and that the value of an action or policy depends on whether it is productive of such satisfaction. Individual welfare is understood as the satisfaction of the wants or preferences for goods and services individuals have or, if fully informed, would have …. Social welfare is conceived of as simply the aggregate of individual welfare thus understood.[83]

In short, preference utilitarianism thinks of the collective good as the aggregated satisfaction of individuals' private preferences. Furthermore, it values individual actions according to whether or not they produce such a good. Likewise, private good (one's welfare) is attained when one gets what one thinks they want and, finally, public good (social welfare) is nothing more than the sum of individual and individuated goods.

Anderson wrote that passage as a critique of relying too much on neoclassical solutions to environmental problems. Yet he just as easily could have written it about liberal conceptions of responsibility (for climate change). Where "individual welfare" is

[83] Anderson, *Sustainable Earth*, 90.

understood as getting what one wants, discharging "individual responsibility" can be understood in this framework as one such want. To return to my opening example, simply refusing to take luxurious drives on Sunday can discharge responsibility for climate change. Likewise, where "social welfare" can be thought of as a collection of individuals each getting what they want, discharging "collective responsibility" can be done by states making decisions on behalf of individuals and international institutions making decisions on behalf of states. Individual consumer choices, and the menu of individual consumer choices as constructed by states and international institutions, would then capture the extent of what it might mean to think about responsibility for climate change. According to liberal conceptions, being responsible for climate change is highly compatible with – if not paramount to – making responsible consumer choices or making responsible choices about what consumers are able to choose from. In sum, liberal and calculable theories of responsibility might help address climate change *as* an economic issue. Yet these approaches do little to address climate change as a form of violence that stems from *and* far exceeds consumer choice.

Anderson's broader point, like my own, is to suggest that (neoclassical) economic approaches are indeed *not* enough. Arguing against the view that environmental degradation is reducible to an allocation problem (in which there are simply not enough markets to sufficiently 'value' each element of the environment), he counters that "diagnosing environmental change as arising from inadequate pricing in resource consumption gives the misleading impression that the primary economic actor is the consumer. This overlooks the fact, O'Neill explains, that it is predominantly "within the

productive process that ecological damage primarily occurs.""[84] Crucially, Anderson thus suggests that if we want to understand environmental degradation, we need to look neither exclusively nor primarily at the individual actions of consumers as the liberal model would have us do, but instead turn to the corporate actions of producers. In instances when it is politically or ethically useful to ascribe collective blame rather than collective responsibility, we would thus do well to turn to those who have literally produced climate change. Yet when we want to assess responsibility of post-liberal subjects, a turn to responsiveness is key.

Responsiveness and Situated Responsibility

I end this chapter with a modest claim: it is ethically and politically desirable to start from responsiveness rather than responsibility, insofar as a cultivation of responsiveness opens one up to the problem of climate violence instead of closing one off to it (either through denial of the problem or thoughtless acceptance of a problematic solution). Through responsiveness, one might gain an opportunity to respond and engage or, in George Shulman's words, to *acknowledge* the political truth of climate violence rather than to *disavow* a "counter-narrative that connects private troubles to public causes differently."[85] Yet unlike more definite, calculable approaches to responsibility, responsiveness is neither necessarily an individual endeavor nor a closed, teleological process. Throughout *Burdens*, Schiff highlights the role of things held in common – her prime example being competing *narratives* of structural injustices and / or crises – in

[84] Ibid., 142. Reference is to John O'Neill, *Ecology, Policy, and Politics: Human Well-Being and the Natural World* (London: Routledge, 1993), 176.
[85] George Shulman, "Acknowledgment and Disavowal as an Idiom for Theorizing Politics," *Theory & Event* 14, no. 1 (2011): https://muse.jhu.edu/article/423098. Thanks to Nancy Luxon for pointing me toward this article.

fostering or impeding responsiveness: "narratives provide potential sites for cultivating responsiveness, and also for its frustration."[86] By narrating processes and events differently – by telling different stories but also by struggling to define public perception – we can unsettle settled and problematic ways of understanding the world and our relationships to it.

Yet narrations of climate change like those that inhere in managerial and neoliberal approaches tend to close down responsiveness, because such narratives "can frustrate the cultivation of responsiveness by depriving us of any sense of connection between crises and ordinary life."[87] On the other hand, narratives and dramatizations of climate change such as I have tried to provide in Chapter 2 and elsewhere[88] might instead "do some work in connecting the experience of crisis to ordinary life" in order to invite responsiveness. On this note, Schiff stresses the importance of "horizontal" stories, or stories the privilege democracy, equality, and uneven responsibility, in light of globalization: "The possibility of cultivating responsiveness – and the capacity to view the frustration of responsiveness as a problem – depends on telling each other and ourselves *horizontal* narratives of globalization in which, rather than cogs in a machine, human beings are the active, creative *sources* of globalization."[89]

The alternative is to start with the preformed responsibility of sovereign and autonomous individuals. Such an alternative produces two common models of responsibility for climate change, one "individual" and one "universal." The individual

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[86] Schiff, *Burdens*, 20.
[87] Ibid., 47.
[88] "Climate Change, Violence, and Film," *Political Theory* OnlineFirst (2015): 1-21.
[89] Schiff, *Burdens*, 15.

approach locates responsibility largely within individuals who then make choices within markets (including the choice to try not to participate in markets) rather than citizens (or other members of communities for which they care) who make broader decisions. Scaling up, this liberal approach to collections of individuals produces the second, universal approach in which all are figured as responsible for climate change for giving moral support to and international institutions (under the guise of international law, global governance, etc.) that are tasked with determining what such a responsibility means by, for example, adjudicating the meaning of "common but differentiated responsibility" among states.

Alongside the individual and universal approach, questions about collective and extraordinary responsibility, and responsiveness, raised by Arendt, Lavin, Young, Satkunanandan, and Schiff, suggest a need for a more situated approach to climate violence in which one's responsiveness opens them up to their historical and political responsibility. Such responsibility in turn stems from one's position in relation *to* climate violence and its sources. Whereas this chapter has aimed to shift the discussion about responsibility toward responsiveness, questions remain about the possible goals of responsiveness and its relation to democratic theory and politics. It is to these questions that I turn in Chapter 5.

Chapter 5: Greenhouse Democracy

I. Introduction

My goal in this chapter is to describe the contours of "greenhouse democracy," a set of ideas that might enable and foster the enactment of a climate imaginary alternative to the dominant one, and a broad outline of practices through which to respond differently to climate violence. Along the way I will first discuss critiques and endorsements of approaching a problem like climate change democratically to begin with. Having made a case for democracy over and against more authoritarian, top-down political alternatives, I look at existing electoral, deliberative, and disruptive theories through which climate change might be connected to democracy. Finding that existing approaches were not conceived to address the problem of climate violence as I have outlined it throughout this dissertation, I then outline the ways that greenhouse democracy draws on and yet departs from other forms and consider the tasks that greenhouse democracy might help us start to perform.

II. Why Democracy?

Given the ever present availability of the kinds of top-down solutions discussed in Chapter 3 as well as more authoritarian and ostensibly more effective options, a first question arises: why democracy at all?

Environmental political theory has long struggled with the question of democracy. Early debates about the connection between politics and the environment circled around whether democratic or authoritarian responses were variously preferable or 'necessary.' Simply put, the democratic case was based in the conviction that citizens would

recognize the importance of protecting the environment in which they were embedded: that newly dubbed Blue Marble.[1] Because we are all dependent on the earth, fostering democratic engagement, participation, and decision making would, with some inevitable missteps, false starts, and other blunders common to all attempts at collective power, move us toward desirable environmental outcomes. Democracy could be a force against destructive private interests driven by immoral greed or amoral capitalist logics of growth. Yet on the other hand, as has become convention to note, writers in the early era of environmental political theory such as William Ophuls, Garret Hardin, and Robert Heilbroner found more cause for optimism in authoritarian politics. Such writers suggested that the vicissitudes of democracy would render it ineffective at delivering on environmental promises: those missteps, false starts, and other blunders along with more straightforward corruptions of the democratic ideal and capture of its institutional apparatus would be routine, not accidental.[2] In turn, they suggested the need for authoritarian-leaning responses. Environmental protection, their thinking went, calls for strong and centralized governments capable of delivering swift results.

Flash forward four decades and things seem quite different: much if not all contemporary (environmental) political theory substantiates Sheldon Wolin's observation

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[1] Blue Marble is, of course, the name of one of history's most widely circulated photographs. Taken by astronauts in 1972, Blue Marble shows a fully illuminated Earth and is often pointed to as a condition of possibility for thinking about a singular *globe*, *global society*, etc. Note the parallels between the importance of Blue Marble and Arendt's opening reflection in *The Human Condition*, that the 1957 satellite that humans launched into orbit constituted an "event, second in importance to no other, not even to the splitting of the atom." See Hannah Arendt, *The Human Condition*, 2nd ed. (Chicago: University of Chicago Press, 1998), 1.

[2] John Meyer, "Political Theory and the Environment," in *The Oxford Handbook of Political Theory*, eds. John Dryzek, Bonnie Honig, and Anne Phillips (Oxford: Oxford UP, 2006), 782, Matthew Humphrey, *Ecological Politics and Democratic Theory: The Challenge to the Deliberative Ideal* (New York: Routledge, 2007), ch. 1.

that "democracy is one among many versions of the political but it is peculiar in being the one idea that most other versions pay lip-service to."[3] Among a great many thinkers, "it is perhaps true to say that broadly speaking there is a commitment to democracy in contemporary political theory."[4] Indeed when authors buck this general trend, their initial task is to navigate the pressure to at least pay lip service to democracy. Jason Brennan, for example, opens *Against Democracy* with a claim that the bulk of democratic political theorists are at heart romantics and "at the very least, democratic theory needs someone to play devil's advocate."[5] In other words, much contemporary and environmental political theory expressly or implicitly endorses a future in which democracy (however interpreted and however robust) is the only legitimate, avowable, or permissible means of attaining environmental ends.

Yet even now among environmentally minded authors more broadly, the authoritarian-democratic split remains somewhat unsettled, and always ready to reemerge. James Lovelock, famous for developing the Gaia Hypothesis (the language for which was given to him by *Lord of the Flies* author William Golding), remains controversial for breaking authoritarian in recent years. In an interview in the Guardian, Lovelock proposed that:

> We need a more authoritative world. We've become a sort of cheeky, egalitarian world where everyone can have their say. It's all very well, but there are certain circumstances – a war is a typical example – where you can't do that. You've got

[3] Sheldon Wolin, "Fugitive Democracy," *Constellations* 1, no. 1 (1994), 11; Wendy Brown, "We Are All Democrats Now …" in *Democracy in What State?,* ed. Amy Allen (New York: Columbia UP, 2011).
[4] Barry Holden, *Democracy and Global Warming* (London: Continuum, 2002), 5.
[5] Jason Brennan, *Against Democracy* (Princeton: Princeton UP, 2016), vii.

> to have a few people with authority who you trust who are running it. And they should be very accountable too, of course.[6]

Likewise, public intellectuals routinely espouse questions about whether democratic countries ought embrace authoritarian elements. Take Thomas Friedman, who has expressed the desire to wield authoritarian powers, if only to get 'us' to where 'we' need to be. In *Hot, Flat, and Crowded* Friedman wrote of a "mischievous thought" that he once had: "If only … If only America could be China for a day–just one day. *Just one day!*"[7] Elaborating, Friedman notes that he is especially enamored of what he sees (projects?) as:

> The ability of China's current generation of leaders–if they want–to cut through all their legacy industries, all the pleading special interests, all the bureaucratic obstacles, all the worries of a voter backlash, and simply order top-down the sweeping changes in prices, regulations, standards, education, and infrastructure that reflect China's long-term strategic national interests–changes that would normally take Western democracies years or decades to debate and implement.[8]

Yet at least three problems inhere in these authoritarian views, problems significant enough to cast doubt.

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[6] Leo Hickman, "James Lovelock on the Value of Sceptics [sic] and Why Copenhagen was Doomed," *The Guardian* (March 29, 2010): http://www.theguardian.com/environment/blog/2010/mar/29/james-lovelock. Though it is only an afterthought and not his central point, I wonder if Lovelock doesn't betray himself in adding that authoritative powers should 'of course' be 'very accountable:' is not accountability already something of a democratic trait, at least in terms of how rulers operate and what citizens expect from them? Or, conversely, if a power should "of course" be accountable, shouldn't it of course *not* be authoritarian?

[7] Thomas Friedman, *Hot, Flat, and Crowded: Why We Need a Green Revolution–and How it Can Renew America.* 2.0, Updated and Expanded ed. (New York: Picador / Farrar, Straus and Giroux, 2009), 430.

[8] Ibid.

First, concerned scholars have attempted to correct the misconception of China as a straightforwardly effective authoritarian environmental policymaker, concluding that there is a significant disconnect between its ability to *set* policy from above and its ability to *enforce* such policy effectively.[9] More generally, a second problem is with the idea that there is some objective environmental goal to be achieved. In Chapter 3, following Mike Hulme, I discussed this in terms of the "global climate thermostat" idea. The desire for an eco-authoritarian assumes that "solving" environmental issues is a matter of how to best arrive at some pre-defined end or *telos*: "we" all know where "we" need to be, yet the messiness of democracy does not allow for efficiency in decision making, or is too susceptible to capture by special interests. As such, the story goes, democracy cannot get us to where we need to be when it comes to environmental issues. But the complexity of both 'natural' environmental processes and human interactions with and experiences of such processes is too great for a single actor to divine knowledge sufficient to enact, from the top down, environmental solutions.

A third problem with an eco-authoritarian response has more to do with the vicissitudes of power not in a democracy, but in an explicitly hierarchical, authoritarian mode. As Alan Carter puts it:

> If a[n eco-authoritarian] leader is necessary, it must be because he or she has real power, and how can its exercise be guaranteed to remain benevolent? Even if a particular leader does turn out to be genuinely benevolent, even if he or she is not corrupted by the exercise of power or the need to retain it, how can it be

[9] See Bruce Gilley, "Authoritarian Environmentalism and China's Response to Climate Change," *Environmental Politics* 21, no. 2 (2012): 287-307.

> guaranteed that those who inherit his or her position will be equally benevolent? Hierarchical structures, by their very nature, seem to make it easy for the most competitive, most ruthless and least caring to attain power. Moreover, the centralized exercise of authoritarian rule is an ever-attractive goal for would-be usurpers, whose vision is usually less pure than that of those whom they usurp, as the history of many coups can be argued to attest to.[10]

In short, an eco-authoritarian dream is by and large a fever dream, a desire for the ability to alienate one's responsiveness to and responsibility for environmental degradation and to transfer it to an infallible leader to be discharged in one fell swoop. Taken together, the complexity of environmental problems along with the unpredictability of authoritarian futures cast significant doubt on the ability (not to speak of the desirability) of an authoritarian regime to respond to climate change.

Yet in the context of authoritarian promises made by people like Friedman, and broader signs of ill democratic health, even those who share a democratic conviction must express uncertainty about it. Terrence Ball, for example, in endorsing a democratic approach to environmental problems, admits "there is no logically or conceptually necessary connection between democracy and environmentalism." Indeed, he continues, "the latter can take, and in several significant instances has taken, authoritarian and anti-democratic forms. And, too, democratic majorities can and frequently do favor decisions and policies that degrade or destroy the natural environment."[11]

While at a basic empirical level Ball is right here, there is room to think about the

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[10] Alan Carter, *A Radical Green Political Theory* (New York: Roudledge, 1999), 26.
[11] Terrence Ball, "Democracy," in *Political Theory and the Ecological Challenge*, eds. Andrew Dobson and Robyn Eckersley (Cambridge: Cambridge UP, 2006), 131.

connection between democracy and environmental degradation somewhat differently. I agree with Ball that there is no *necessary* connection between democracy and environmentalism, if we take *necessary* to mean *inevitable*. Yet I would suggest that, at our historical conjuncture, there are solid reasons to think that democratic empowerment offers great promise, and to want to expand its potentials and increase its tasks rather than looking elsewhere: there is a *necessary* connection in the sense that democratic engagement is *needed* if we are to respond to environmental dilemmas. Here, democracy becomes less an institutional attainment (though that helps!) and more something to be cultivated and enacted in the face of destructive state and corporate actions. Once we understand climate change (specifically) as a kind of violence that invites projects of widely fostered responsiveness, collective responsibility, and that raises the question of one's relationship to something like a human collectivity (Chakrabarty's point discussed in Chapter 1), democracy in the broadest sense of a set of shared, collective, and public projects presents itself as an obvious contender. If everyone is impacted, then everyone counts as 'the people' who must, in one way or another, take and give responsibility and, ultimately, respond to the climate violence both in the world and in our own lives.[12] I

[12] I'm inspired here by Nancy Fraser's critique and rehabilitation of Habermas's "all-affected principle" which "holds that all potentially affected by political decisions should have the chance to participate on terms of parity in the informal processes of opinion formation to which the decision-takers should be accountable." Fraser is critical of Habermas here. Whereas in Habermas's formulation the all-affected principle was coextensive with national, political citizenship (i.e. those able to be affected by national political decisions were by definition citizens), Fraser points out that this was never really the case, "as the long history of colonialism and neocolonialism attests." Today, she continues, "the idea that citizenship can serve as a proxy for affectedness is no longer plausible … why not apply the all-affected principle directly to the framing of publicity, without going through the detour of citizenship?" I agree with the sentiment, though as I will discuss below, I think this calls for a re-orientation of citizenship around ecological and corporeal rather than national lines. See Nancy Fraser, "Transnationalizing the Public Sphere," *Theory, Culture & Society* 24, no. 4 (2007): 21.

return to this line of thinking below.

Yet even if we provisionally accept the argument (or the hypothesis, or perhaps the conviction) that invigorated democratic thought and action offers a better alternative than authoritarian approaches to environmental problems, we are immediately faced with another more challenging doubt having to do with the history of democracy itself. As Timothy Mitchell has shown, a historical account of Western democracy's upbringing alongside the fossil fuel and colonial eras provides reasons to suspect democracy's innocence itself: democracy viewed historically reveals itself only as a tarnished idea. Actually existing, institutional democracy, Mitchell argues, is tightly intertwined not only with histories of carbon extraction and consumption, but with destructive and antidemocratic histories of industrialization and colonization as well. "The relationship between coal, industrialization and colonization," he writes, "provides a first set of connections between fossil fuels and democracy."[13] Whatever we make of this specific point, Mitchell's work allows us to voice a broader concern about the relationship between liberal institutional democracy and climate change: that the material sources of climate change and the ability to measure it, to discover it as a problem, have emerged simultaneously with the narrative of liberalization and democratization of great swaths of the world: liberal democracy and climate change appear to be another set of what Wendy Brown calls "nonidentical birth twins."[14]

Given authoritarian promises on the one hand and problematic historical connections on the other, we might just write off democracy. Indeed, such challenges provide

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[13] Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (New York: Verso, 2013), 17.
[14] Wendy Brown, "We Are All Democrats Now …" 44.

compelling reasons to ask whether democracy has been complicit in the violence of climate change. Yet even if so, we might ask whether other forms of democracy might break with this complicity. In the next section I turn to three forms of democracy that concerned parties might embrace in the fight against climate change: electoral, deliberative, and radical. I select these three insofar as they move us incrementally away from the dominant imaginary (where the role for democracy is generally confined to elections) to a liminal form (where different forms of deliberative democracy might work with or against the dominant imaginary) to an explicitly disruptive account of democracy. At the same time, a look at these three forms allows us to see what is missing from the conversation that, I suggest, greenhouse democracy starts to address.

III. Which Democracy?

While those wont to defend authoritarian approaches to environmental problems do so on dubious normative and practical grounds, reading them through the broader point of Mitchell's *Carbon Democracy* shows that their critiques, often leveled at democracy outright, make more sense as critiques of particular formulations of democracy. While we should still be suspect of eco-authoritarian conclusions, and while we should note that already existing democracies run on and were built by fossil fuels, democratic thinkers and actors would do well to listen to the critique leveled by people like David Shearman, an Assessor of two IPCC reports. Shearman attributes what he sees as the "fundamental flaws in liberal democracy" with regard to climate change and its connection to the market economy, which "is fused with liberal democracy, such that each is dependent upon the other for survival." "Together," Shearman continues, "they have developed a

liberty for the individual that has environmentally destructive consequences. The liberty to negate these consequences is constrained."[15] In other words, if democratic thinkers cede democracy to those who imagine it in line with dominant forces associated with liberal capitalism, then democracy is likely *not* up to the task of responding to climate change. In a time shaped by neoliberalism and marked by Brexit and then Trump, the limited institutional forms to which democracy has been reduced – the emblems of which are voting as the extent of one's likely participation and deliberation as the extent of one's ideal participation in a representative democracy are indeed of uncertain use in the struggle against the violence of climate change.

Electoral Democracy

Un- and anti-democratic cases against electoral democracy have long been made, not least by the kinds of ecoauthoritarians mentioned above. Yet in the contemporary moment, in which elections (if not necessarily the popular vote) have delivered outcomes with questionable relations to substantive democratic values and goals, a specifically *democratic* critique of elections is worth attention.

In *Against Elections: The Case for Democracy*, David Van Reybrouck offers a concise statement of the virtues of broadly participatory over electoral democracy in the context of what he deems an ongoing "Democratic Fatigue Syndrome" in which "our democracy

[15] David Shearman, "Democracy and Climate Change: A Story of Failure, *OpenDemocracy*, November 7, 2007, https://www.opendemocracy.net/article/democracy_and_climate_change_a_story_of_failure. To be clear, Shearman's conclusions go too far in the direction of the authoritarians discussed above. My point is simply that if we write off his critiques when we write off his conclusions we risk missing something important.

is being wrecked by being limited to elections."[16] Citing the World Values Survey in which 91.6% of the 73,000 people surveyed across 57 countries ("representing almost 85% of the world's population") gave their support to democracy, Van Reybrouck finds in the same survey "a considerable increase in calls for a strong leader and low support for elements that make up actually existing democracy such as "parliaments, governments and political parties." His opening observations conclude: "It would appear that people like the idea of democracy but not the reality of it, or at any rate not the current reality."[17]

Van Reybrouck explains this gulf between admiration for the concept of democracy and faith in actually existing democracy by suggesting a general crisis of legitimacy due to 1) decreased levels of voting, 2) high voter turnover between parties, and 3) decreased membership in political parties.[18] Taken together, these constitute a crisis of legitimacy insofar as members of democratic publics are no longer engaged, which is in turn compounded by a second problem: a crisis of efficiency. Again, he provides three confirmations of this crisis: 1) negotiations between coalitions taking longer to convene, 2) parties in government "coming under increasing attack," and 3) the slowness of governance itself.[19] Taken together, Van Reybrouck's perceived legitimacy and efficiency crises suggest a democracy away from which members of publics are turning, resulting in weaker and less energetic governments. Where "politics has always been the

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[16] David Van Reybrouck, *Against Elections: The Case for Democracy*, trans. Liz Waters (London: The Bodley Head, 2016), 1-2. The study, which is rich, can be found at http://www.worldvaluessurvey.org/WVSOnline.jsp.
[17] Ibid., 1-2.
[18] Ibid., 7-9.
[19] Ibid., 10-2.

art of the possible" it has now "become the art of the microscopic," in which "the inability to address structural problems is accompanied by the overexposure of the trivial, fueled by our insane media that, true to market logic, have come to regard the exaggeration of futile conflicts as more important than any attempt to offer insight into real problems."[20]

Ultimately, Van Reybrouck leverages his observations of and explanations for the declining trust in existing democracy to make an argument *against* elections and *for* a different way of selecting political leaders: a (re)turn to 'sortation.' Reading elections as such as an 18th century technology, Van Reybrouck concludes provocatively and polemically that, like other 18th century inventions ("the stage coach, the air balloon, the snuffbox"), electoral democracy may have outlived its relevance: "a democracy that reduces itself to elections is in mortal decline."[21] In turn, Van Reybrouck turns to sortation as a solution, a system that mirrors Athenian democracy, selects citizens by lottery, and that is comprised of several councils: An agenda council, interest panels, review panels, a policy jury, a rules council, and an oversight council.[22]

Because his intervention and argument concerns coming up with better ways to *do* institutional democracy, the turn to sortation is understandable. For my purposes, and because climate violence is too complex and dispersed to be addressed by political leaders alone (even if those leaders were comprised of engaged citizens), I see no purpose in endorsing or critiquing this turn. Instead, I have walked through Van Reybrouck's

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[20] Ibid., 13.
[21] Ibid., 55-6. Van Reybrouck omits any specifics about where this supposed 18th century democracy took place, leaving open the likelihood that he is relying on an imagined past.
[22] Ibid., 142-3.

argument in order to raise his broader point, that electoral democracy, in our contemporary conjuncture, is not likely to provide an effective, legitimate response to our most pressing problems due to its efficiency *and* legitimacy crises.

Deliberative Democracy

In seeking to move beyond merely electoral democracy toward sortation, Van Reybrouck also endorses deliberative democracy. In reference to a 1988 intervention in *Atlantic Monthy*, he cites James Fishkin's plea that 1,500 citizens be selected by lot and tasked with the goal of deliberating, on television, in lieu of more traditional electoral polling. Fishkin pushed for this because "these polls model what the public is thinking when it is not thinking … A deliberative poll models what the public would think if it had a better chance to think about issues."[23] Fishkin, likewise, put this into practice during the election of 1996: "from 18 to 21 January, in Austin, Texas, the first deliberative opinion poll took place, called the National Issues Convention."[24] Based in part on the modest but not insubstantial success of the NIC and similar deliberative experiments around the globe, Van Reybrouck claims that after the deliberative turn, the idea that "deliberative democracy can give a powerful boost to the ailing body of electoral-representative democracy is no longer doubted by any serious scholar."[25]

Yet the turn to deliberative democracy, of course, goes well beyond Fishkin and has been made across academic fields and political projects. Indeed this turn has influenced environmental political theory tremendously, and continues to guide many thinkers who want to globalize democratic thought and democratize global politics, environmental and

[23] Ibid., 108.
[24] Ibid., 110.
[25] Ibid., 111.

otherwise.

Some scholars, for example, devote much attention to theorizing how existing democratic institutions could ideally produce a strong response to environmental decay if more spaces were made for deliberative engagement. Graham Smith's *Deliberative Democracy and the Environment*, for example, comes to a crescendo with recommendations about how existing "political institutions might be restructured to allow greater democratic deliberation,"[26] a conclusion wholly compatible with Van Reybrouck's. Central to this redesign, though, is a key premise of the book, that environmental values are just that: values and interests akin to any other values or interests rather than, say, a deeper concern with the foundations of life, flourishing, and collective responsibility. To be sure, we should be wary of attempts to wholly derive our politics from an abstract idea of "nature," as John Meyer has shown, but crafting a politics that is cognizant of the material conditions necessary for life and flourishing does not necessarily go so far as to sound the "derivative" alarm.[27] At any rate, Smith's institutionalism holds that the environment is one value among many rather than, in some broad sense, a condition of possibility for life. However institutions are reformed or

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[26] Graham Smith, *Deliberative Democracy and the Environment* (London: Routledge, 2003), 129.

[27] Meyer suggests that there have been two main ways of figuring the nature-politics relationship. The "derivative view" proposes that politics can somehow be built from knowledge of the ontology of nature: correct political institutions and truths are in this sense divined from what "nature" is and what "nature" demands. At the other extreme, the "dualist view" proposes that whatever "nature" may be, it is wholly separate from the artifice of politics: politics is a human endeavor that needn't bow to the demands or ontology of nature. His preferred relationship, something like a material or dialectical view of nature and politics resists the extremes of the derivative and dualist views. Here there is no necessity of deciding, at the outset, between a socially constructed or an objective view of nature. On the contrary, the task is one of asking what the proper *relation* of nature to politics might be. *Whether* nature is a construct or objective, that is, is a diminished question once we ask *what* role nature should play in determining politics. See John Meyer, *Political Nature: Environmentalism and the Interpretation of Western Thought* (Cambridge, MA: MIT Press, 2001).

redesigned, there is a deeper problem here with viewing the sustainability of the material foundations of life and democracy as just another realm subject to being valued, or not.

And yet there are other, less obviously liberal-pluralist varieties of the search for more environmentally responsive deliberative institutions. John Dryzek has put a tremendous amount of work into thinking seriously about the prospects for deliberative democracy generally, and with regard to global environmental problems specifically. Early in the deliberative turn, Dryzek recognized and thought through liberal sources of deliberative democracy, even as he insisted that his version was more in line with a line of critical theory "concerned with charting the progressive emancipation of individuals and society from oppressive forces."[28] In *Deliberative Democracy and Beyond*, he clarified that while both liberals and critical theorists "can believe in distortion-free political dialogue … what liberals fail to recognize is that getting constitutions and laws right is only half the battle" because extra-constitutional distorting factors such as dominant discourses and ideologies prevent the deliberative moment from becoming "distortion-free."[29] I more or less agree with Dryzek up to this point although, and this is an old critique, I am not convinced of the possibility of entirely "distortion free political dialogue." The following passage, though, presages a rift that might give us pause:

> Liberals believe individuals are left unchanged as a result of political participation; individuals possess preferences that are given, such that before, during, and after participation they are the best judges of their own interests.

[28] John Dryzek, *Deliberative Democracy and Beyond: Liberals, Critics, Contestations* (Oxford: Oxford UP, 2000), 20.
[29] Ibid., 21.

> Critical theorists, in contrast, are among those who take the view that democratic participation can transform individuals.[30]

While I agree, I want to suggest that Dryzek could have gone farther. If liberals believe individuals are unchanged by politics and critical theorists think individuals can transform in the course of some bounded "politics" such as occurs in deliberative exchange, I suggest that in contemplating democratic potential we need to think more broadly about how, where, and toward what ends democratic individuals might 'transform' themselves and others. Put differently, we need to think more critically about the degree to which humans are, as is assumed by Habermas's *liberal* and Dryzek's *critical* deliberative democracy alike, always already autonomous individuals who *then* come together to deliberate and perhaps be changed around the margins. Instead we should think seriously about ways in which we are creatures who change and are changed in turn through our myriad relationships, environments, practices, habits, and, yes, "politics," in both our public *and* private lives. So while Dryzek critiques other critical theorists (Habermas first and foremost)[31] for lacking a critical edge and readopting liberalism, we might indeed turn that critique back on Dryzek himself.

In light of the relentlessly global problem of climate change, a separate set of doubts about deliberative democracy arises. Jane Gordon counters the deliberative approach with the claim that:

> One cannot, as is the norm in much Habermasian critical theory, allow certain foundational principles to remain outside of the bounds of negotiation: In

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[30] John Dryzek, *Deliberative Democracy*, 21.
[31] Ibid., 21-7.

> suggesting that the norms that define the intersubjective relations that constitute collective life should reflect ongoing deliberations of all implicated parties, he is describing the deliberate and active creolization of political life.[32]

Gordon's argument has to do with what she calls *creolizing* political theory, a process that "draws attention to the mutual transformation involved in molding that which emerges as politically shared."[33] In other words and contra deliberative democrats, those interested in democratic engagement of problems held in common cannot set some aspects of culture, experience, or expression aside as sacred (deliberative capacity, e.g.), cannot assume some general or universal *a priori* because interactions will necessarily overflow into those forbidden areas outside of moral-practical reason – to instrumental reason, yes, but also and importantly to aesthetic-expressive reason. On the question of excluding various forms of reason and the people who reason in prohibited ways, Teena Gabrielson and Katelyn Parady highlight that "the logic that underwrites these exclusions reserves full membership to those whose deliberative capacity is understood to control the passions and appetites of the body."[34] If deliberative democracy excludes various forms of reasoning as well as the 'passions and appetites of the body' from the frame of politics, it should come as no surprise when material forces like climate violence that act on and impress upon the body – physically, psychically, or emotionally – are subtly excluded as well.

Still, as environmental political theorists have tried to bring democracy to bear on the

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[32] Jane Gordon, *Creolizing Political Theory: Reading Rousseau Through Fanon* (New York: Fordham UP, 2014), 167.
[33] Ibid., 3.
[34] Gabrielson and Parady, "Corporeal Citizenship," 374.

problem of global climate change, the project of expanding upon the deliberative turn has seen continued popularity. Indeed Dryzek's more recent writings, along with others writing since the late 1990s and early 2000s have tried to supplement theories and practices of global governance with insights from and infrastructures of deliberative democracy.[35] Barry Holden, writing early on, pinned his hopes on a cosmopolitan vision of a global civil society populated by international organizations and regimes.[36] Scholars after him largely followed suit. Yet more recently, Dryzek writing with Hayley Stevenson, admit that the international problem of climate "begets multiple challenges for effective and legitimate governance" and that "such settings beyond the national state largely transcend the reach of democracy, at least as traditionally conceptualized in liberal terms."[37] Dryzek and Stevenson have thus scaled back Holden's grand vision accordingly, maintaining that the best we can do is to "promote the deliberative features" of the inherently non-democratic structure of global governance – to democratize those structures as far as they will go.[38] I suggest we should think more seriously about what those impacted by climate change and wont to hold on to their democratic commitments and identities can focus on, given the overwhelming nature of the problem. How can we

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[35] See Hayley Stevenson and John Dryzek, *Democratizing Global Climate Governance* (Cambridge: Cambridge UP, 2014) and John Dryzek, Richard Norgaard, and David Schlosberg, *Climate-Challenged Society* (Oxford: Oxford UP, 2013), esp. ch. 6.

[36] Holden, *Democracy*, ch. 4. See also David Held and Angus Hervey, "Democracy, Climate Change and Global Governance: Democratic Agency and the Policy Menu Ahead," in *The Governance of Climate Change*, David Held, Angus Fane-Hervey and Marika Theros, eds. (Malden, MA: Polity Press, 2011), 89-110 and Anthony Giddens, *The Politics of Climate Change* 2nd ed. (Malden, MA: Polity Press, 2011) for similar approaches.

[37] John Dryzek and Hayley Stevenson, "Democractizing the Global Climate Regime," in *Interpretive Approaches to Global Climate Governance: (De)constructing the Greenhouse*, Chris Methmann, Delf Rothe, and Benjamin Stephan, eds. (London and New York: Routledge, 2013), 232.

[38] Ibid.

edge out of our personal, purely private lives and bring ourselves to confront climate violence as a problem for publics? How, ultimately, can we grow the foundations for a broader climate justice movement that "adeptly link(s) policy advocacy efforts with powerful grassroots movement building, counterhegemonic discourse, organizing, and protest?"[39]

As Bonnie Honig has recently voiced, we diminish the work of democratic citizenship "if we leave to democracy merely the practice of electoral majoritarianism and deliberative proceduralism while divesting democratic states or publics of their ownership of or responsibility for public things."[40] With Honig, I suggest that limiting practices of democracy to electoral and deliberative forms risks further divesting publics of their responsibility for climate change, thus obscuring the public thing to which they might be responsive. Because these are the dominant forms of democracy, it should come as no surprise that there seems to be no 'public thing' for people to do with regard to climate change.

Disruptive Democracy

Or perhaps it is more accurate to say there are not *many* public things for people to do with regard to climate change. In recent years public intellectual activists like Naomi Klein and Chris Hedges[41] have presented disruptive protest as a third way for people to engage democratically with climate change. Such modes of engagement can be

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[39] David Ciplet, J. Timmons Roberts, and Mizan R. Khan, *Power in a Warming World: The New Global Politics of Climate Change and the Remaking of Environmental Inequality* (Cambridge, MA: MIT Press, 2015), 248.
[40] Bonnie Honig, *Public Things: Democracy in Disrepair* (New York: Fordham UP, 2017), 4-5.
[41] Chris Hedges, "The Coming Climate Revolt," *Truthdig* (September 21, 2014): http://www.truthdig.com/report/item/the_coming_climate_revolt_20140921.

understood as an extension of Sheldon Wolin's influential distinction between 'the political' and 'politics,' and an attempt to disrupt and reshape the latter through the expansion of the former.

In "Fugitive Democracy," Wolin gave us the useful distinction between *the political* (the occasional and sporadic use of collective power to "expand the wellbeing of the community") and *politics* (legitimized, continual public contest, "primarily by organized and unequal social powers").[42] Thinkers like Klein and Hedges implicitly suggest we collect electoral and deliberative modes of democracy under the heading of what Wolin calls politics, and advocate for public, disruptive actions that embrace the fleeting, fugitive, momentary eruption of the political.

When Wolin published "Fugitive Democracy" in 1994, he was not likely thinking centrally about global warming, climate change, or climate violence. Yet in a brief passage, Wolin did highlight *pollution* as a kind of problem that moves us from a "modern" (Hobbesian) focus on the nation state and its borders to a "postmodern" sign of the limitations of such borders. "The Hobbesian notion of "frontiers" has also been disputed on other grounds … as obstructionist by those who point to the grave problems whose causes and solutions defy political boundaries: *pollution*, famine, abuses of human rights, nuclear weapons, and epidemics."[43] Wolin himself is ambivalent here: he fears that democratic responses to problems like climate violence ("pollution") may attempt to expand the political yet ends up expanding politics. The difference here has to do with those fleeting moments of fugitive democracy that expand democratic potentials for the

[42] Wolin, "Fugitive Democracy," *Constellations* 1, no. 1 (1994): 11.
[43] Ibid., 15. Emphasis mine.

demos to rule itself, on the one hand, and the continual expansion of social control by states and corporations which attempt to manage the democratic political through the daily grind of politics, on the other.

Whatever Wolin may have concluded, others following in his footsteps have explicitly endorsed sporadic, disruptive responses that mirror the logic of the political. In a public talk given in 2014 just before between 100,000 and 400,000 people took to the streets of Manhattan to push for a more radical response to climate change,[44] Hedges remarked that, when the state inevitably meets those marching with repression:

> We will have to carry out acts of civil disobedience that seek to cripple the mechanisms of corporate power. The corporate elites, blinded by their lust for profit and foolish enough to believe they can protect themselves from climate change, will not veer from our path towards ecocide unless they are forced from power. And this means the beginning of a titanic clash between our corporate masters and ourselves.[45]

Collective disruption, per Hedges, is an unavoidable reaction to state and corporate powers that draw us ever closer to catastrophe. Democracy is in the streets.

In a similarly Wolinian moment, Naomi Klein writes that:

> The process of taking on the corporate-state power nexus that underpins the extractive economy is leading a great many people to face up to the underlying democratic crisis that has allowed multinationals to be the authors of laws under

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[44] Hayley Munguia, "How Many People Really Showed Up to the People's Climate March?" *FiveThirtyEight* (September 30, 2014): https://fivethirtyeight.com/features/peoples-climate-march-attendance/.

[45] Hedges, "Coming Climate Revolt."

> which they operate–whether at the municipal, state/provincial, national, or international level. It is this corroded state of our political systems–as fossilized as the fuel at the center of these battles–that is fast turning Blockadia into a grassroots pro-democracy movement.[46]

Blockadia, she notes, "is not a specific location on a map but rather a roving transnational conflict zone that is cropping up with increasing frequency and intensity wherever extractive projects are attempting to dig and drill."[47] Finally, pointing to the essence of this vision of democracy, Klein writes that "having the ability to defend one's community's water source from danger seems to a great many people like the very essence of self-determination." "What is democracy" she asks, "if it doesn't encompass the capacity to decide, collectively, to protect something that no one can live without?"[48]

Klein's examination of Blockadia suggests one form that greenhouse democracy could take. Direct actions, aimed at expanding the political potentials of "the people," and making demands for new forms of political and material power over and against ossified forms of state and corporate power that underwrite the fossil fuel era, might be the most that we can hope for. Yet those who have paid critical attention to the aftermaths of the political eruptions of the last few years (Occupy Wall Street; the Arab Spring) might raise points of caution, if not outright cynicism. Amidst so many praiseworthy (if disparate) moments of disruptive democracy, such critics might wonder whether a lack of attention to the aftermath of disruption is itself less a necessity of "fugitive" democracy and instead

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[46] Naomi Klein, *This Changes Everything: Capitalism Versus the Climate* (New York: Simon & Schuster, 2014), 360-1. See 358-66 more generally for a discussion of democracy vis-à-vis the climate.
[47] Ibid., 294-5.
[48] Ibid., 361.

a sign of the times, or a symptom of a broader lack of political commitment and capacity. "Might ADD," asks Bonnie Honig, "be the symptomatic disorder of neoliberalism?"[49] In other words, what if Blockadia, or the disruptive climate marches, of the sometimes-energized sometimes-deflated campaigns to 'save the planet' blow over precisely because they are momentary by design, and subject to getting caught up in shifting and momentary moods?

I am sympathetic with the drive to disrupt politics and expand the political that thinkers like Wolin, Hedges, and Klein share. Yet I am not convinced that it is enough; I worry that there is more to be done in the down time, the time in between momentary disruptions. At a basic level, such disruption takes planning, as activist-authors like Klein are well aware. As much as we might like to pretend, hundreds of thousands do not march together spontaneously and the camps that captured much collective attention at Standing Rock required tremendous effort behind the scenes. With regard to longer-term concerns and strategies, radical or disruptive forms of democracy need to tend to the more organized elements of participatory democrats. With Jason Vick (commenting on Wolin and Jacques Rancière), we can maintain that much about the contemporary world and its constellations of state and corporate power requires attention to the "momentary," to "a transgressing of the ordinary," in which concerted citizen action "triumphs over the politics of centralized state management."[50] Yet in light of slowly unfolding problems like climate violence that connect past, present, and future in ways that cannot be ignored disruptive democracy starts to look incomplete. Climate violence is not likely to be

[49] Honig, *Public Things*, 102n20.
[50] Jason Vick, "Participatory vs. Radical Democracy in the 21st Century," *New Political Science* 37, no. 2 (2015): 213.

addressed through disruption alone: were there to be a complete and total disruption of the fossil fuel industry tomorrow, people in communities across the world would still need to respond by coming up with ways of allocating responsibility, care, and cost of the damage already locked in. As Joan Tronto points out, allocation of care and responsibility are central if often neglected democratic projects.[51] Without some form of participatory institutions – likely decentralized so as to retain political autonomy from 'centralized state management' – disruptive democracy alone risks ignoring these latter elements of democratic life.

Recently, Dean Mathiowetz has pointed to a similar set of concerns raised by Hanna Pitkin in relation to Wolin's fugitive democracy and the outlines of what I am calling disruptive democracy more generally. Democracy, Mathiowetz writes:

> Thus involves not only its most agonistic moments, in which "the *demos* is activated and thus takes shape in the midst of revolt, resistance, or revolution … contest[ing] established boundaries, institutions, and practices." For Pitkin, it also entails knowing the ways that one is connected to others, and taking responsibility for the consequences of those connections; of shifting one's perspective to encompass that of a diverse and ever-shifting "we," and *in so doing,* joining in political action.[52]

In these latter projects of continually revisiting connections, shifting perspectives, and

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[51] Tronto, *Caring Democracy: Markets, Justice and Equality* (New York: New York University Press, 2013).

[52] Dean Mathiowetz, "'Meditation is Good for Nothing:' Leisure as a Democratic Practice," *New Political Science* 38, no. 2 (2016): 243. The embedded quote belongs to Wayne Gabardi, "Contemporary Models of Democracy," *Polity* 33, no. 4 (2001): 547-568 and the closing sentiment refers to Hannah Pitkin, "Justice: On Relating Public and Private," *Political Theory* 9, no. 3 (1981): 349.

thus joining in political action, disruptive democracy too finds its limits. As Christopher Meckstroth claims, change has not been particularly well-covered by democratic theorists. Instead, as is reflected in the above discussions of electoral, deliberative, and to some extent disruptive democracy, "most mainstream democratic theories define democracy as a set of timeless principles or institutions."[53] Meckstroth calls these "static theories" of democracy, and smartly points out that in focusing on timeless principles or institutions, static theories "ignore an entire field of political phenomena central both to the establishment of democratic states and to ongoing political life within them."[54] Where static theories of democracy might adequately grasp and design the ends of principles and institutions, they tend to ignore or erase the significance of "the actions and interactions of citizens as they pursue those ends."[55] Finally and most importantly, ignoring these more everyday political interactions means limiting the *loci* of (greenhouse) democracy. "Even when mainstream democratic theories consider political protest or activism as part of democratic politics," Meckstroth tells, "they often see it only as raising free-floating arguments or reasons, and ignore the crucial element of *organization* and *mobilization* to which such arguments are tied."[56] Static democracy, that is, largely leaves democratic *struggle* and *engagement* – the prerequisites of democratic change and the practices that support it – aside. If Meckstroth is right, it should come as no surprise that existing democratic theories and politics have not enabled impacted citizens and peoples to keep up with a changing climate.

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[53] Christopher Meckstroth, *The Struggle for Democracy: Paradoxes of Progress and the Politics of Change* (Oxford: Oxford UP, 2015), 3.
[54] Ibid., 5.
[55] Ibid..
[56] Ibid., 5-6. Emphasis mine.

Taken together, these three models of democracy lack attention to sustained, everyday engagement by assuming participation rather than recognizing a need to clear the way for it. In the case of climate violence, they lack attention to inter-related and mutually-reinforcing sites of what could be ongoing democratic *work*: allocating responsibility, expanding public attention to affective and emotional responses to climate violence alongside more strictly rational ones, and coming up with ways to sustain – and institutions to support – democratic responsiveness, struggle, and change.

IV. Greenhouse Democracy

> "As phenomena are open to various modes of conceptualizing them as problems, so too their public character is open to various means of conceiving their resolution."[57]
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> "Democracy, in other words, is the only legitimate form of government not because it has a secure theoretical foundation, but just because it is the only form that needs no further foundation whatsoever."[58]

The "forms" of democracy – if not government exactly – discussed above may be useful and even necessary, but they are insufficient insofar as they do not get us very close to 'engaging with the everyday' elements of climate violence, to recall John Meyer's work once more. What if the central climate questions for those of us who lack significant access to institutional levers of power most of the time shifted from "what can I do about this vast problem?" or "what should an international response to climate change look like" to "how am I positioned in relation to climate violence, to its causes and effects, and to others impacted by it?;" "how does climate violence impact me, my community, and still more distant others?;" and "what can we do to repair the damage

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[57] Joseph R. Gusfield, *The Culture of Public Problems: Drinking-Driving and the Symbolic Order* (Chicago: University of Chicago Press, 1981), 5.
[58] Meckstroth, *Struggle for Democracy*, 7.

done?"

Such questions might appeal immediately to political and environmental activists, and even a few empathetic bystanders might find that they are important. But as sociologist Kari Norgaard found when studying climate denial in Bygdaby, Norway, most of the time, "people want to protect themselves a bit."[59] Most people most of the time, that is, are motivated by self-preservation. For some, this might mean that they become responsive to climate violence insofar as the well being of *their* self – the image they have of themselves – is tied to the well being of the world and distant others: injustice anywhere is injustice everywhere. Others might become responsive insofar as they are directly impacted by rising sea levels, intensified storms or droughts, etc. Yet for others, protecting oneself might also mean turning away and remaining un-responsive through explicit denial or actions that suggest one denies or downplays the problem. Might starting from more familiar and concrete places around us, within us, and between us lead us toward engagement rather than away from it? Might the act of tending to where we are and how we feel – activities that allow us to protect ourselves a bit – indeed count as the beginnings of democratic engagement, insofar as those activities are "available to the participation of the many?"[60]

In this closing section I answer in the affirmative to this last question and outline some

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[59] Kari Mari Norgaard, *Living in Denial: Climate Change, Emotions, and Everyday Life* (Cambridge, MA: MIT Press, 2011). For Norgaard, the questions of denial and neglect of climate change are starting points rather than dead-ends, as they are often taken to be. "Emotions," she notes, "despite their apparent salience in how people process information on climate change, are missing from the current scholarly discussion about nonresponse" (80). In response, Norgaard discusses a series of 'cultural tools' that might allow the Norwegians with whom she talked to better process those emotions. I continue this line of thought below.

[60] Mathiowetz, "Meditation is Good for Nothing," 253.

components of and tasks for greenhouse democracy: a democracy of, by, and for the greenhouse, where engaging lived experience is a starting point and the democratic embrace and allocation of responsibility for repair an ultimate goal.

Engaging lived experience is important insofar as we often get stuck, caught up in abstract considerations, seduced by the ever recurring feeling that things will just work out, or obsessed with debates over that which we have little to no power. The students who I teach tend to be deeply concerned about climate change and environmental degradation. Yet when I ask about what might need to change, their answers are relatively constrained: shop from sustainable companies, appeal to the better nature of the fossil fuel industry until it accepts the logical, economic, or ethical necessity of closing down the fossil fuel era, etc. They are hardly alone in what might be described as their cognitive dissonance: I rarely come up with a satisfactory answer to similar questions when put on the spot. Rather than *only* read this as an overwhelming success of neoliberal depoliticization or individual failure, I think we should understand my students and myself to be reaching for that which is currently in reach, within the dominant climate imaginary. Per Manjana Milkoreit, "our imagination is to a large extent bound to the systems we live in … the things we know … provide most of the source material for our thinking about alternative realities and different futures."[61]

The specific limit here, it seems to me, is as such: to really step into a different way of thinking about and engaging with climate violence, we would need resources and models with which to confront that problem. In short, my students and I, along with a great many

[61] Manjana Milkoreit, "The Promise of Climate Fiction: Imagination, Storytelling, and the Politics of the Future," in *Reimagining Climate Change*, eds. Paul Wapner and Hilal Elver (London and New York: Routledge, 2016), 172.

others, are dealing with the unacknowledged but sometimes sensed fact that that which is within reach is indeed not enough, even as we are seldom presented with alternatives. To reach for alternatives we would need institutions (broadly conceived) the purpose of which is to make bolder and more collective actions thinkable.

Yet clearly, it would not be enough to do this work purely on the self: it needs to be done in the world, with others, politically. The forms of democracy discussed above either explicitly reject or simply neglect the possibility of such work. Missing from electoral, deliberative, and disruptive democracy alike, we see inklings of how it might work in feminist thought and democratic theories that emphasize mindful attention to embodied citizenship.

I return to this below. First, I pose questions of a democratic imaginary, how it would present climate violence differently and, indeed, how it would make use of dramatization and presentation in ways that encourage us to situate ourselves in relation to broader public problems like that of climate violence.

A Democratic Imaginary

A recent volume starts us down the path toward such an imaginary: Paul Wapner and Hilal Elver's *Reimagining Climate Change*.[62] There, the editors and contributors suggest an important impediment to countering climate change takes the form of what they call "Climate, Inc.," which limits collective imagination. Climate, Inc. comes very close to what I have been calling the dominant climate imaginary: it is "the routinized system of response that has evolved to address climate change" that could theoretically work but

[62] Paul Wapner and Hilal Elver, eds., *Reimagining Climate Change* (New York: Routledge, 2016).

has not yet done so. From within Climate, Inc., we appear to be in an "if only" moment: "*if only* markets could capture full climate costs; *if only* states could find common ground and agree to appropriate international measures; *if only* technological innovation was given fuller reign and renewables could compete on a level playing field," etc., then existing institutions – Climate, Inc. – could take care of climate violence in one way or another.[63]

The problem for Wapner, Elver, et al. is that Climate, Inc. has led to a "hardening" of thought: it has locked us into thinking about climate change in one particular way and not others. Along the way it has "fixed certain horizons and committed us along particular trajectories," "narrowed the range of possibility for thought and action," and "concentrated attention on the instrumentality rather than the ends of climate measures."[64] Ultimately Climate, Inc. has restrained "the ability to unleash the mind, heart, and spirit to envision, entertain, and develop hitherto neglected possibilities" by reifying and naturalizing the dominant climate imaginary.[65]

What, I now ask, might start to shift if we were to change the way we told stories about climate change and climate violence? how might a shift in stories help build a more democratic imaginary from which to tackle climate violence? and how might a more democratic imaginary approach the problem of climate violence?

Milkoreit proposes a turn to climate fiction, also known as Cli-fi. Cli-fi, she contends,

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[63] Ibid., 2.
[64] Ibid.
[65] Ibid., 2-3. See also Martin Lukacs, "Neoliberalism Has Conned Us Into Fighting Climate Change as Individuals," *The Guardian* (July 17, 2017): https://www.theguardian.com/environment/true-north/2017/jul/17/neoliberalism-has-conned-us-into-fighting-climate-change-as-individuals?CMP=share_btn_tw.

"might help us rethink Climate Inc. and open up new horizons of political, technological, economic, and cultural opportunity," even as it might humanize climate change, allowing us to "feel, taste, smell, and think about climate change in a more personal way."[66] I agree. Yet for those uncomfortable with turning to fiction as a way of engaging 'real-world' problems, I would add that telling the stories of actually existing climate change differently might have the same effect. Consider an except from the conclusion to Christine Shearer's *Kivalina: A Climate Change Story*, which takes us back to the island of Kivalina and the people who live there, under constant threat of climate violence:

> The effects of climate change become more apparent every day. The year 2010 marked not just the hottest decade since instrumental climate records began in 1850–eighteen nations around the globe experienced their hottest temperatures ever–but also the wettest ….
>
> Meanwhile, fossil fuel companies and their supporters argue that the United States should continue drawing upon our oil, coal, and gas resources for our benefit. This argument, however, ignores that ownership of the resources and thus profits are concentrated among a small group of interests that are free to sell the resources as they see fit ….
>
> The additional costs of fossil fuels also became apparent in April 2010, with the Massey coal mine explosion that killed twenty-nine, and the BP Deepwater Horizon oil rig explosion that killed eleven and resulted in the largest oil spill in U.S. History. Similar disasters, meanwhile, are all too common throughout the

[66] Milkoreit, "Promise of Climate Fiction," 172.

> rest of the world, including frequent coal mining "accidents" in China, widespread population displacement for the construction of coal mines and plants in countries such as Burma and Thailand, and oil "spills" that have long plagued Ecuador and Nigeria. These kinds of events will become more frequent as current fossil fuels supplies deplete and companies pursue harder-to-reach sources with more unconventional techniques, such as offshore oil drilling in the remote Arctic, blasting water and chemicals into the Marcellus Shale underlying the northeastern United States, and pumping increasing amounts of captured carbon dioxide underground for enhanced oil recovery.
>
> Fossil fuels are not the only option, however, and the science on climate change suggests that what's left of them should be used wisely, moving toward a model of smaller and more local development powered by cleaner energy sources ….
>
> As this book has argued, climate change is a social issue that increasingly affects all of us. The dangers have become clear, imperiling people throughout the world like those in Kivalina, and it is time to act. To fail to do so is to leave this issue to the small number of powerful players who exert so much influence over U.S. and global policy, many of whom have worked very hard to dispute and downplay climate change and block meaningful action. We cannot afford to leave the fate of our planet in their hands. It is up to all of us.[67]

Breaking with the attempt to describe only or even primarily the broad physical contours

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[67] Christine Shearer, *Kivalina: A Climate Change Story* (Chicago: Haymarket Books, 2011), 153-5.

of climate change, Shearer instead connects those realities to the social contexts out of which they emerge and to an alternative energy infrastructure, in order to make a plea for thick engagement. Here climate violence is held up as a call to action and engagement on behalf of those impacted rather than a problem requiring action only from above.

Or, consider Jose A. Kusugak's foreword to *The Earth is Faster Now*, a collection of Indigenous observations of climate change:

> For Inuit, during most of the year, sea ice is really a large extension of land. In winter, it was rare to find igloos and camps built on land. The land was colder than building igloos on sea or lake ice. The radiant heat of the water made that much difference.
>
> Climate change has real and serious implications for Inuit life because much of the traditional knowledge is based on the times of seasons and not traditionally on temperatures. In other words, one does "this" at "this time" of the year rather than when the temperature gets "like this." For example, catching caribou is done in the fall after flies stop flying; not only to prevent maggots but because the meat shouldn't be too fermented or for that matter, too fresh. It is called *pirujat* (cached) or fermented meat and fat is called *igunaq* (singular), *igunat* (plural). There are many grades of *igunat* from mild to green. Now with climate change and warmer temperatures, much meat is going to waste because of over fermentation and botulism is becoming a real hazard.[68]

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[68] Jose A. Kusugak, "Foreword: Where a Storm is a Symphony and Land and Ice are One," in *The Earth is Faster Now: Indigenous Observations of Arctic Environmental Change*, eds. Igor Krupnik and Dyanna Jolly (Fairbanks, AK: Arctic Research Consortium of the United States, 2002), vi.

Kusugak's description brings attention to the proximate implications of climate change more than it spells out the technical details. By doing so, he has room to explore how factors of life that reside in the intersection between politics and nature – factors like *land*, *time*, and *food* – shift, transform, or invert under conditions of climate violence. By describing climate change in this way, Kusugak dramatizes the problem so that demands readers *feel* the disruption of the everyday lives of concrete others.

A democratic imaginary, to push back on such restraints, starts by asking how we can make things public, and by asking which things can be made public. When we imagine climate violence democratically – when we think of it in all of its drama and impact upon concrete people and communities – it is more difficult to remain unresponsive. What is needed, then, are practices and institutions capable of fostering these kinds of attention.

Greenhouse Democracy

The ultimate point of imagining climate change democratically – as a problem for democracy – is to explore "hitherto neglected possibilities."[69] By drawing our attention to quotidian and local instances of climate violence and then connecting such instances to climate change more broadly, authors like Shearer and Kusugak point to three related possibilities that I close by exploring. First, such stories prompt us to acknowledge that we are all embedded in vast and intricate webs of relations with human and nonhuman entities and forces. While such an acknowledgement has many implications at many levels – ontological, theoretical, ethical, existential, and so on – the focus here is on the public or political implication. At the political level such stories suggest a need to turn our attention away from citizenship organized around aggregative democracy and

[69] Wapner and Elver, *Reimagining Climate Change*, 2-3.

sovereign states and toward what EPT and feminist scholars have described as corporeal agency and citizenship.[70] Second, by bringing drama and dramatization into the narrative, writers like Shearer and Kusugak offer us the possibility that our emotional and affective reactions to stories of climate violence and to that violence itself – and not just our rational attempts to understand, measure, predict, and persuade – might constitute opportunities for democratic engagement. If, per Charles Taylor, "we know with our feelings," much of what we know about climate violence has been circumscribed and kept out of public affairs, leaving us with without frameworks for adjudicating truth when "what we sense through our feelings clashes with what we know through dispassionate reason."[71] A democratic imaginary allows us to ask whether such reactions – which common sense largely confines to our private and interior states – might indeed have public elements and whether there might indeed be a public 'truth' to how seemingly individual psychic reactions to a changing world are patterned. Taken together, the first two possibilities remind us of a third: a shift from (only) approaching climate change from the top down as modeled by the UNFCCC and other forms of global governance to starting from where one is and edging slowly outward as a specifically democratic practice available to many, if not all.

Corporeal Citizenship

Where the picture of human agency and citizenship held by the dominant climate imaginary "rests on a faculty of rational autonomy," a democratic imaginary emphasizes

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[70] Sharon R. Krause, "Bodies in Action: Corporeal Agency and Democratic Politics," *Political Theory* 39, no. 3 (2011): 299-324.
[71] Charles Taylor, forward to *Bringing the Passions Back In: The Emotions in Political Philosophy*, eds. Rebecca Kingston and Leonard Ferry (Vancouver, BC: UBC Press, 2008), viii.

the degree to which humans are always in relations with other humans and with the world around them, a point that some feminists, new materialists, and others have stressed.[72] Such thinkers have long insisted that a relational ontology offers a better starting point for approaching social and political issues surrounding agency and citizenly activity such as they are rather than as they might be. In this view, myriad relations (familial, local, national, international, to other people, to other species, to the earth, etc.) make us what we are and enable us to be what we want to be, to achieve our goals, and to generally live our lives.

Received Western notions of the human, the citizen, and so much else, Teena Gabrielson and Katelyn Parady write along these lines, rest on "a privileging of the epistemic that constructs political space through the reinforcing dualisms of mind/matter, nature/culture, reason/emotion, men/women, public/private and so on."[73] In other words, our traditional fixation on epistemology implies a tendency to categorize and leads to the creation and subsequent reinforcement of binaries. Implicit here are many concerns: that binaries will be reified and essentialized, that they will ignore or exclude aspects of the world that remain uncaptured by relevant binaries, and that, politically, one side of a given binary will be singled out for inclusion while the other is excluded. Drawing such concerns together, Gabrielson and Parady suggest it is our focus on epistemology specifically that "makes possible the abstract and universal citizen, disembodied from the

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[72] Krause, "Bodies in Action," 300. See also Jane Bennett, "The Force of Things: Steps Toward an Ecology of Matter," *Political Theory* 32, no. 3 (2004): 347-72; Diana Coole, "Rethinking Agency: A Phenomenological Approach to Embodiment and Agentic Capacities," *Political Studies* 53 (2005): 445-65, and Samantha Frost, *Lessons from a Materialist Thinker: Hobbesian Reflections on Ethics and Politics* (Stanford: Stanford UP, 2008).

[73] Gabrielson and Parady, "Corporeal Citizenship," 374-5.

particularities of both context and human difference."[74] Epistemology and categorization, rather than things more material or experiential, constitute the conditions of possibility for and sustain the idea of the autonomous, disembodied, and decontextualized citizen.

As such it should come as little surprise that this sense of "autonomy–of isolated, self-reliant moral selves–does not adequately reflect people's lived experience in most communities around the world."[75] I would only add that those who do understand themselves and their accomplishments along the lines of autonomy and self reliance may well be participating in the kind of epistemological exclusion described above, and thereby neglecting to consider the many things and people who make such an 'autonomy' possible.[76] Still, it is this universal and abstract citizen that is the presumed participant in the forms of democracy discussed above; who participates in elections and therefore logically consents to their results; who deliberates with reason rather than passion in the hopes of crafting the most beautiful and convincing argument; who disrupts politics by participating in the political in order to break radically from the past. Instead of following the road from epistemology to unrealistic autonomy, greenhouse democracy might be better served by turning to "an ontological frame in which entities do not pre-exist their relationality" and where "both humans and non-humans, subjects and objects, and social

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[74] Gabrielson and Parady, "Corporeal Citizenship," 375.
[75] Fiona Robinson, *The Ethics of Care: A Feminist Approach to Human Security* (Philadelphia, PA: Temple UP, 2011), 29.
[76] The classic example in EPT being the case of Thoreau at Walden, who relies deeply on unacknowledged others yet writes as if he does not.

and physical entities mutually co-constitute the other."[77]

To make this turn, Gabrielson and Parady outline a version of green citizenship "that allows for greater recognition of the diverse attachments individuals have to the natural world and better attends to claims of recognition and social justice."[78] Through its capacity to better attend to and incorporate democratic ways of responding to climate violence and environmental degradation more broadly, corporeal citizenship offers a useful path toward a more sophisticated understanding of the social and political aspects of the problem, and might help democratic thinkers and actors come up with new ways of considering the collectivities to which we belong and for which we are responsible beyond the merely subjective and intentionalist ones I discussed in Chapter 4. Per Dayna Nadine Scott et al., "corporeal citizenship has the potential to allow ecological citizens to expand the sphere over which they exercise ethical and political responsibility."[79] Relevant spheres of responsibility, for example, might extend beyond (without necessarily leaving behind) political parties, states, and identities. By attending to the truth that is in some sense written on the body,[80] corporeal citizens might gain more sophisticated understandings of themselves not only as citizens of the human institutions

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[77] Dayna Nadine Scott, Jennie Haw, and Robyn Lee, "'Wannabe Toxic-Free?' From Precautionary Consumption to Corporeal Citizenship" *Environmental Politics* 26, no. 2 (2017): 332.
[78] Ibid., 376.
[79] Ibid., 324.
[80] "Whereas much has been written on power and the body, probably because it is the most obvious dimension of the relation between state and violence, as well as the most evidently disquieting one, there is still much to be explored about truth and the body. Let me clarify my intention. Instead of analyzing the origin of violence, as is usual, either explicitly or implicitly, I suggest examining its effects. Or better said: its trace. If power leaves traces on bodies, what sort of truth does the state–and more generally society–extract from them?" Didier Fassin, "The Trace: Violence, Truth, and the Politics of the Body," *Social Research* 78, no. 2 (2011): 284.

of states and all the rest, but also as living, breathing, simultaneously fragile and powerful inhabitants of the earth who belong to and are responsible for various more-than-human ecosystems. A shift toward corporeal citizenship, in other words, is the political-material counterpart to the political-ethical shift to responsiveness discussed in Chapter 4.

Affect and Emotions

Leonard Ferry and Rebecca Kingston suggest that "the rational, normative vision of politics so prevalent today can be said to harbor an incomplete, if not manifestly false, concept of the human subject."[81] Against a politics built on the presumption of a rational subject alone, they advocate a more passionate politics that disrupts received approaches that rigidly separate private from public, emotions from political judgment, and affect from political life more broadly.[82]

Put more simply, in light of the turn to corporeal citizenship – citizenship that recognizes humans as permeable, relational, and more open to the world than we might sometimes know – it makes sense to question and revise our assessment of the place for emotional, affective, or psychic responses (i.e. those thought of as 'internal' to us or as impressed upon us from without). Specifically, we might ask whether such responses bridge the gap between private and public, individual and world, or internal and external given the fact that "not only are bodies embedded in social contexts and structures, but

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[81] Leonard Ferry and Rebecca Kingston, introduction to *Bringing the Passions Back In: The Emotions in Political Philosophy*, eds. Rebecca Kingston and Leonard Ferry (Vancouver, BC: UBC Press, 2008), 3.
[82] Ibid., 111-14.

the social is also embedded, literally, in material bodies."[83]

If we answer in the affirmative, a gap in existing democratic institutions and practices comes into view: we have few if any ways of bringing emotions and affects out into public or processing them alongside fellow citizens, corporeal or otherwise. Writing on the history of the passions in relation to political theory, Cheryl Hall traces this back to enlightenment liberals who, in keeping with the 'rational, normative' vision of politics critiqued by Ferry and Kingston, "work to marginalize passion." For Hall, many classical liberals marginalize passion "either through explicitly arguing that it is best kept outside the margins of the public sphere, or by speaking of it only marginally, if at all."[84]

Politically, Hall raises Hamilton's paradigmatic arguments in *Federalist* #15, according to which "the passions of "men" lead to irrational and unjust behavior."[85] And there are clearly dangerous ways of bringing emotions back into politics. For this argument we can go at least as far back as Seneca. About anger, for example, Seneca wrote that:

> The best course is to reject straightway the initial prickings of anger, to fight against its first sparks, and to struggle not to succumb to it. Once it has begun to carry us off course it's difficult to sail back to safety, since not a jot of reason remains once the passion has been let in and some sovereign right has been granted to it by our own will: it will thereafter do not what you allow but what it

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[83] Scott et al. "Wannabe Toxic Free?," 333.
[84] Cheryl Hall, *The Trouble with Passion: Political Theory Beyond the Reign of Reason* (New York and London: Routledge, 2005), 21.
[85] Ibid., 3. Hamilton: "Why has government been instituted at all? Because the passions of men will not conform to the dictates of reason and justice without constraint," in Alexander Hamilton, James Madison, and John Jay, *The Federalist Papers* (New York: Mentor Books, 1961), 110.

wants.[86]

Here, a cautionary tale emerges: visceral emotions like anger can – and for Seneca almost certainly will – take us in directions we would not otherwise go. From Seneca to Hamilton to Habermas a primary response has often been to exclude such emotion.

Yet while including emotion might bring dangers, it remains unclear whether excluding it is possible. Per Ferry and Kingston, a rational subject devoid of emotion is unrealistic. Nor is it clear that excluding emotion is entirely desirable. If, per Taylor, we know by feeling, to exclude or circumscribe feeling is to exclude knowledge. Perhaps it is unwise to rush into a public sphere overcome with anger; it is at least *also* unwise to neglect the anger of peoples who have long suffered injustice, or to refuse to attend to one's own angry responses to injustice.

Yet coming back to the climate, what if we have been neglecting opportunities to engage affective and emotional responses there, too? The argument against engaging emotions and passions as public or political things seems to have been that they can be arbitrary whereas reason is steady. Here Hall rightly asks us to consider whether passions and reason are really all that different:

> There are two main problems with these presumptions. The first is precisely that they treat passion … as if it were an alien force that operates independently of the psyche. While passions may sometimes be experienced this way, there is no reason to believe that our feelings are any more imposed on us than our thoughts. What about the times when thoughts come into our heads unbidden, as if from

[86] Lucius Annaeus Seneca, *Anger, Mercy, Revenge*, trans. Robert Kaster and Martha Nussbaum (Chicago: University of Chicago Press, 2010), 21.

> nowhere? Or when our minds wander from the topic we intended to think about? Or when we find it difficult to *stop* thinking about something, despite our best attempts? In all of these cases, the workings of reason can be seen as both anarchic and commanding, in tension with personal agency and self-control. And yet few have concluded that reason is a strange power that overmasters the self …. Passion and reason are both "us." They are both native to the self, both parts of the workings of the psyche. Neither is a foreign power poised to take over the self.

I largely agree with Hall here, insofar as she highlights the similarities between ways that the passions and reason operate, and to bridge the gap between the two. Yet I take partial issue with the idea that the passions and reason alike are *simply* 'native to the self' rather than 'foreign powers.' Insofar as "reason" and "passions" are ways of responding to the world, they are at once "native" and "foreign," "external" and "internal." The point is that the dominant climate imaginary and prevalent understandings of democracy alike have ignored our corporeal permeability – the extent to which the outside world impresses upon our selves and our selves emanate out into the world. As such, we have given inadequate attention to connections between the above binaries, and to working toward envisioning institutions and practices that help us process such connections both privately and politically. Given that climate violence unfolds slowly and impacts many in ways subtle and overt, much of the response to it is going to be affective and emotional. The dominant imaginary cannot offer the kinds of resources we would need to recognize such reactions, much less to leverage them in order to support constructive and reparative

political projects, to build slow but widespread and sustained resistance to the fossil fuel era and the harms it brings about, etc.

In lieu of such work, there should be no surprise when, for example, passive climate deniers (who deny not out of ideological or organized interests but out of an overwhelming sense of helplessness) seem to retrench further into their denial as they are buried in what they experience as abstract facts. In other words, we should not be surprised when people opt to remain unresponsive, especially since we have little by way of institutions or practices through which to grapple with overwhelming topics. Likewise, consider those who feel good about their attempts at ethical consumption yet decline to make moves toward activism even though any response lacking the latter is likely to be insufficient. Those responses, too, start to make sense when understood as involving not only reason strictly defined, but affect and emotion as well. In each of these cases, we often treat affective, emotional, or passionate responses – whether they take the form of denial or that of self-congratulation – as end points: places that people end up after rationally processing and assessing relevant arguments, data, etc. Yet seeing such responses as having public relevance – or having the potential to be made public – would mean seeing them as starting points: reactions that one has *before* confronting or processing much of anything. I am not certain of what such institutions or practices might look like, but I am fairly convinced that the vast problem of climate violence presents an unwelcome opportunity to start to settle such questions.

Edging Slowly Outward

In *Worldly Ethics*, Ella Myers distinguishes between models of public ethics that focus

on the self, the other, and the world at large.[87] Associating such models, broadly, with Foucault, Levinas, and Arendt, Myers concludes that the third offers the best starting point for a particularly democratic ethos, centered on democratic care that is "collaborative, expressed in joint action by plural participants" and where "the practitioner of such care is never a self but always an association of selves" and "the recipient of care is not another person or even persons, but the world, understood as the array of material and immaterial conditions under which human beings live – both with one another and with a rich variety of nonhumans, organic and technological."[88]

The purpose of 'bringing the passions back in,' or giving greater attention to affective responses to the world, or trying to learn from what we feel, is neither confined to nor primarily concerned with therapeutic or charity-based models that Myers finds in Foucault and Levinas. While therapeutic benefits might come along the way and in the act of caring for the world, associations of individuals will likely care for others (as they would given an ethic of charity), the overwhelming worldliness of climate violence paired with the corporeal citizen and its attention to shared affective and emotional responses to climate violence, draws our attention to Myers's care for the world: to the potential that paying attention to the mediating qualities of the world might help expand democratic potentials and projects.

For Myers, an ethics based in a care for the world leads us toward associative democratic projects, in which associations are not between worldless individuals: "democratic relations are not simply intersubjective, if by that we mean they involve two

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[87] Ella Myers, *Worldly Ethics: Democratic Politics and Care for the World* (Durham, NC: Duke UP, 2013.
[88] Ibid., 86.

or more subjects."[89] Instead, "democratic politics involves relations among plural individuals which are mediated by shared, yet also disputed, objects of attention … citizens are simultaneously brought together and separated from one another by specific, worldly matters of concern, which "*inter-est*" or lie between them."[90] What is climate violence if not a 'shared yet disputed' object of attention and a 'worldly matter of concern' that lies between us?

The third component of greenhouse democracy, then, is an acknowledgment that coming to grips with the intricacies of climate violence means focusing political attention not only on ourselves and others, but on the world that connects, surrounds, and in some sense infiltrates us. To do so requires taking stock and reflecting but it also means reaching out, edging slowly outward from where we have been and from where the dominant climate imaginary inclines us to stay. Centering the world makes it more likely that we will be able to see where we are in the greenhouse and where we are in relation to its other inhabitants, to see ourselves belonging in multiple ways to a climate-changed world: as sometimes victim, sometimes perpetrator, sometimes beneficiary and as always capable of being more responsive rather than less.

V. Conclusion

A more democratic climate imaginary – and greenhouse democracy itself – challenges us to recognize and enact at least three interrelated shifts: toward corporeal citizenship, toward a more sustained and potentially public attention to affect and emotion, and toward re-centering the world as a place for democratic care and horizontal exploration.

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[89] Ibid., 12.
[90] Ibid.

Clearly, shifting attention to these endeavors breaks with much of what we know 'liberal' or 'aggregative' democracy to be. These last projects might take electoral or deliberative forms: a method of gauging the will of a nationally circumscribed 'people' and forming representative governments accordingly or the form of creating public spaces where the marketplace of ideas might set up shop.

On the surface, greenhouse democracy has more in common with disruptive forms of democracy, in which democratic publics contest and disrupt the routine order, along with the institutions and forms of power that create that order. Yet corporeal citizenship, attention to affect, and caring for the world are longer-term projects.

Yet some things are common to the forms of democracy surveyed above. First, and at best, they all aim to provide or generate something that is available to all. At best, electoral democracy aims at universal suffrage; deliberative democracy builds measures and practices into its institutions that allow all to participate if they are willing to do so appropriately; and opportunities for disruptive democracy appear everywhere power goes. Likewise, in the greenhouse, all are able to reflect on, assign, and accept political responsibility – for change, for repair, and beyond.

Chapter 6: Conclusion

I. The Argument in Brief

Taken together, my dissertation can be read as an attempt to describe, critically assess, and propose alternatives to shortfalls that inhere in mainstream political responses to climate change. Broadly, two lessons arise:

- *A dominant climate imaginary – animated by logics of neoliberalism and managerialism – places practical limits on mainstream climate discourse and action. In turn, the ideological effect of such an imaginary is to depoliticize climate change and obscure alternative ways of responding to it*. Such an imaginary is produced by and in turn directs many well-intentioned understandings of and responses to climate change. In this imaginary, the same structures out of which climate change emerged can be marshaled and made use of to respond to climate change, and they are indeed deemed largely sufficient for doing so. According to this view, "the solution to the unintended consequences of modernity is, and has always been, more modernity–just as the solution to the unintended consequences of our technologies has always been more technology."[1] Maybe so, though I have doubts. What matters most about those who profess this view is not what they say. Rather, it is what their words imply *without* clearly stating: the 'modernity' and 'technology' at play here stem from and reinscribe the theories and ideologies, power relations and attitudes toward the 'natural' world, that led to anthropogenic climate change in the first place. According to

[1] Michael Shellenberger and Ted Nordhaus, "Technological Salvation," *Global Environmental Politics: From Person to Planet*, Simon Nicholson and Paul Wapner, eds. (New York: Routledge, 2016), 325-6.

the dominant climate imaginary, nothing fundamental has to change.

- *In order to counter the depoliticizing tendencies of the dominant climate imaginary, it is useful to think more concretely about the problem and to render its social and political impact more tangible. I suggest reconceptualizing "climate change" as "climate violence," and dramatizing that violence as two ways of thinking more concretely about the problem at hand.* Whether it deems the problem to be one of "global warming" or "climate change," the dominant climate imaginary supports an abstract and at times overly innocent conceptualization of the problem at hand. Timothy Morton highlights this when he declares that he does not "subscribe to calling it *climate change*," and reminds us of the clear *increase* rather than mere *change* in global average temperatures.[2] I have proposed the concept of "climate violence" in order to shift the discussion further from abstraction and neutrality and indeed to help contribute to attempts by feminists and other thinkers to "bridge the distance of abstraction by bringing climate change *home*."[3]

Likewise, along with these two broad lessons, I have implied that the problem of climate *violence* catalyzes a series of "climatic inversions" – changes in the world and in how we can approach and understand the world. Recall, for example, the following inversions:

- *From climate 'solutions' to a responsiveness to climate violence.* The

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[2] Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press), 3.
[3] Astride Neimanis and Rachel Loewen Walker, "*Weathering*: Climate Change and the "Thick Time: of Transcorporeality," *Hypatia* 29, no. 3 (2014): 559.

problem of climate violence is a multifaceted, expansive, and expanding one, and thus a problem for which even the most well-intentioned top-down *solutions* are intrinsically dubious. Attempts to create carbon markets, for example, can devolve into moneymaking schemes in which the world's historically wealthy accrue further wealth by constructing and engaging in carbon markets, whereas the world's historically poor see their lands turned over to management agencies at the behest of corporate/state/international institutional hybrids and partnerships. Likewise, proposals to geoengineer can quickly lose sight of the most basic commitments to a precautionary principle according to which "the existence of uncertainty will, in certain important cases, lead to a reduction in net benefits from an activity with environmental costs."[4] Rather than turning to solutions from within the dominant climate imaginary, including the "solution" of leaning too heavily on liberal, liability, and individual constructions of responsibility, I have suggested a prior need to foster a collective yet differentiated sense of responsiveness to climate violence that takes centrally into account our position(s) in relation to the violence of climate change.

- *From individual to collective responsibility*. Likewise, a turn to responsiveness to climate violence is at least potentially at odds with commonsense ideas about individual responsibility for climate change. Rather than starting by finding ways to clarify and codify the latter, we need ways to think about collective responsibility that takes individuality and one's particular

[4] Kenneth J. Arrow and Anthony C. Fisher, "Environmental Preservation, Uncertainty, and Irreversibility," *The Quarterly Journal of Economics* 88, no. 2 (1974): 312.

position(s) into account without reducing climate change to a problem of individual agency or guilt. To lose track of the former would mean letting go of opportunities for collective processing, organizing, resistance, and decision making; to do the latter would be to lose track of the conceptualization of climate violence which is structural and slow, and thus beyond the reach of individuals alone.

- *From formal, institutional understandings of democracy toward democratic projects that acknowledge and engage more closely with lived experience.* This latter project, I suggest, is a starting point from which to depart on several necessary democratic endeavors, including the need to collectively expand responsiveness, embrace and account for our positions in climatic collectivities, and to accept and allocate responsibility and care for the world. The dominant climate imaginary's penchant for working through existing 'institutions' extends to many existing democratic approaches to climate change. Such approaches rely on existing accounts of electoral, deliberative, and very occasionally disruptive democracy – accounts that view democracy as first and foremost an institutional and rational endeavor or else one that prioritizes active disruption at the expense of sustained engagement – in order to correct the ecological failures of global capitalism. The proximity, homeliness, and worldliness of climate violence invert our attention from institutional democracy alone to democratic and feminist perspectives that are themselves closer to lived experience: to felt (if often psychically disavowed) impacts, to democratic identities, practices, and projects

capable of directing responsive actors toward a more responsible path and, indeed of allocating responsibility in a more democratic fashion.

- *From a liberal individualist to a relational ontology.* Given broader global forces that re-make the world in the image of classical- and neo-liberal capitalism, the ontological assumption of the dominant climate imaginary is usually, if implicitly, one of individualism. Generally, the path of critiquing one or another liberal phenomena or practice as inflating individualism is well worn. Yet doing so here remains important: far from an abstract philosophical point, individualist ontological assumptions have real consequences with regard to how we think, what questions we ask and what answers we give. When pushed to think about the causes of climate change, we tend to think about what we personally have done: maybe *I* have been eating too much meat, maybe *I* have been driving too much, etc. Likewise, when we think of solutions, our reflex is likewise toward the individual *I:* how can *I* reduce *my* carbon footprint, etc. The basic component is the individual. Alternatively, we scale up the same basic framework to arrive at the idea of individual states responsible for their own emissions, strictly defined. A shift to a more relational ontology, brings about political shifts *from received understandings of citizenship to "corporeal" citizenship,*[5] *from strictly or primarily rational approaches to ones that included affective and emotional states as well, and from top-down projects to ones that move horizontally.*

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[5] Gabrielson and Parady, "Corporeal Citizenship."

In what practical political directions might this dissertation point us? A few, I hope: one fairly proximate and already available and one more distant, blurry, and yet to be conceived. I end by posing preliminary answers to questions about what all of this might look like in practice, how it might work, and what kind of politics it might invite.

One option, already available, is to make use of cultural politics. In recent and not so recent years television shows (*The Wire*, *The Man in the High Castle*, *The Handmaid's Tale*), films (*13th*, *An Inconvenient Truth*, *This Changes Everything*) and music (Nina Simone, Bob Dylan, Woodie Guthrie, the driving forces between the genres of hip hop and punk) have invited and mediated engagement with social and political questions of race, gender, planetary awareness, and far beyond. Such cultural productions ask their observers to confront social and political questions rather than simply learn about them – to struggle, process, and eventually act.

Likewise, an emerging genre of Cli-Fi – climate fiction – invites readers to think about what unchecked climate violence will look like, how it will feel, what it will mean for our ability to 'protect our selves a bit.' We might prepare the way for greenhouse democracy by creating various democratically organized associations around political artifacts: reading groups around Cli-Fi, incorporation of such works into curricula, organizing screenings and discussions of relevant documentaries and artistic exhibits. In a sense this is already happening - such groups took form around the film version of Naomi Klein's *This Changes Everything*; it could continue to do so with clearer ends in mind and with increasing attempts at co-ordination.

And maybe a somewhat modest cultural engagement is all that could follow. Yet there is an argument to be made that the planetary problem of climate violence, if it does not eclipse politics entirely, will contribute to the conditions of possibility for greenhouse democracy. As climate violence continues to unfold, we will be exposed more and more to our own vulnerability. In light of such vulnerability, we can imagine at least three political responses.

First, a non-response: we might collectively decline to be responsive. In this case, each sovereign nation would be left to deal as best it can with the impacts of climate violence. Like uneven levels of causal responsibility, political and ethical responsibility for countering and repairing the violence of climate change would be distributed unequally, the already-rich will endure as the rest of the world bears the brunt of the violence, and so on.

Second, we might continue to pursue top-down responses organized by a dominant imaginary. Such responses may further depoliticize global environmental politics. At worst, they may vault models of technocratic or authoritarian politics into the limelight, ideologically legitimating anti-democratic politics and bolstering corporate and state structures of power.

Taken together, the first and second approaches would reflect the continued dominance of mainstream climate politics that I have tried to critique throughout.

Finally, we might devote greater attention to the ways in which climate violence alters some of our most fundamental understandings of the world, and invites slow, decentralized resistance, imagination, responsibility, and institutional design.

In this case, those impacted by climate violence might marshal the fleeting power of disruptive democracy with the dual goal of creating enduring institutions through which to respond to a climate changed world, and figuring out what it would look like to embrace one's role as a corporeal citizen of the greenhouse.

This last option is necessarily collaborative and requires no official qualifications for participation. It is thus an essentially democratic option. It is also – like so many developments that *have* and others that *have not* managed to expand past imaginations to encompass our infinitely complex world – fragile, uncertain, unlikely, and tremendously important.

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